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PHARMACOGNOSTICAL NOTES.

By John M. Maisch.

Read at the Pharmaceutical Meeting held April 16th.

Many interesting questions connected with our indigenous materia medica require investigation, and it is in most cases not easy to obtain the desirable information. The various inquiries instituted within the past few years, in different sections of the United States, into the statistics of this branch of the drug trade, have resulted in total failures, and, except to the initiated, very little is known of the localities where many of the staple articles of our indigenous materia medica are collected for the general commerce, the information being usually limited to the geographical section of the country. The difficulties encountered in such investigations have been well pointed out by Mr. C. Lewis Diehl, in a paper published in the Proceedings of the American Pharmaceutical Association, 1870, p. 137. The knowledge we possess on this particular point appears merely to indicate that the wholesale market has now to depend on the Southern, South-western and Western States for a supply of drugs which were formerly supplied in sufficient quantities by the Eastern and Middle States. While this may undoubtedly be in part accounted for by the increased demand, it must be also to some extent due to injudicious collection, whereby some medicinal plants have become nearly or entirely extinct in certain localities where formerly they were frequently met with.

The same cause appears to have had already similar results in some Western localities. In Professor Diehl's paper, cited above, we find the following passage, which seems to point in this direction: "Formerly there was a lively trade in indigenous drugs in New Albany,

Ind. (gathered among a range of hills known as 'the Knobs'), but such is not now the case, and the drugs gathered in its neighborhood find their markets no farther than our city (Louisville, Ky.)" Apparently the same wasteful practice, satisfied with the results of to-day, without looking to the demands of the morrow, prevails among the drug gatherers of this country as in South and Central America, and it is not improbable that the time may not be far distant when a few of the leading drugs may require to be cultivated to insure a full and continuous supply of the market.

Although many of our indigenous plants have been used in domestic and in regular practice, the use of some seems to be confined altogether to certain localities, beyond which their medicinal properties are unknown or not appreciated. It would be very interesting to obtain reliable information concerning them.

The following notes are intended to direct attention to a few articles of our indigenous materia medica, nearly all of which deserve to be further investigated:

Cypripedium.—The secondary list of the Pharmacopœia of the United States directs the rhizome and rootlets of *Cypripedium pubescens*, Willdenow. Under the common names of ladies' slipper, and American valerian, two entirely distinct rhizomes, with the rootlets attached, are met with in commerce, both of monocotyledonous origin. The only species of this genus which I have met with in the neighborhood of Philadelphia is *Cypripedium acaule*, Aiton, the radical portion of which has not been observed by me among the commercial ladies' slipper root. The officinal species appears to grow as far south as Georgia, and west to Wisconsin. Gray* states that it is common northward and westward, and southward in the Alleghanies. Dr. Porcher† says it occurs near Newbern. Dr. Darlington‡ mentions, twenty years ago, that it was formerly frequent in Chester County, Pa., and it is probable that the plant is now of rarer occurrence yet.

Another species, which, like the one mentioned, bears flowers with yellow lips, is *Cypripedium parviflorum*, Salisbury, which appears to be most common west; though usually smaller than the former, it attains the height of 1 to 2 feet, the two species appearing to pass into each other (Gray). *Cypripedium candidum*, Muhlenberg, and

* Manual of the Botany of the Northern United States.

† Resources of the Southern Fields and Forests, p. 603.

‡ Flora Cestrica, 3d edition, 1853, p. 316.

spectabile, Swartz, both with white-lipped flowers, occur mainly in the Alleghanies and west thereof, and it is not impossible that they may furnish a portion of the commercial root, while *C. arietinum*, R. Brown, the smallest species, occurring in Canada and the northern border States, is probably not collected.

For a number of years past I have been endeavoring to procure the four species first mentioned, with root and flowers, but have been unsuccessful. Mr. F. C. Weber, while at New Albany, Ind., last year, tried to aid me in my endeavors, and obtained from an old herbalist there the information that *C. pubescens* and *parviflorum*, both of which plants he described correctly, are collected there indiscriminately. At Mr. Weber's request, he collected one plant with the roots and the green fruit, the only one, he stated, he could find, which he palmed off as the first-named species, but which was promptly recognized by me as *Uvularia perfoliata*, Lin. This deception was doubtless purposely attempted.

No better success attended my inquiries of dealers in indigenous drugs, who appear to sell these goods without questioning their identity, relying upon the statements of the Western collectors. The only way to arrive at correct results is to have complete specimens of the different species collected, so that their roots may be compared with the commercial article. The writer would feel indebted to any reader of the "Journal" who would procure for him one or more of the species in question.

Cephalanthus occidentalis, Lin., *Rubiaceæ*, button-bush, or pond-dogwood, is a shrub 5 to 10 feet high, common throughout Canada and the United States in swamps and on the margin of ponds and brooks. The bark has been repeatedly recommended as an expectorant useful in consumption, but I believe has been abandoned, though it may be used yet as a domestic remedy. Last fall a sample of the bark, with a flowering branch, was received from Texas, where a gentleman claimed that the bark had wonderful curative properties; of what character was not stated. If we may judge from the slight bitter taste, which is destitute of acrimony, it may probably possess tonic properties.

Ilex Cassine, Lin., *Aquifoliaceæ*, grows near the coast from Virginia southward, and is known there under the names of cassena, yeopon, yupon or yaupon. It appears to have been held in high repute

by the aborigines, and to be still used to a considerable extent near the North Carolina coast.

Dr. Porcher* states that the Creeks employed it, according to Elliott, at the opening of their councils sending to the sea coast for a supply; they considered it one of their most powerful diuretics. The inhabitants of North Carolina purify brackish water by boiling in it cassena leaves. In North and South Carolina much use is made of the leaves for making tea. The leaves act as a powerful diuretic, and are employed in calculous, nephritic diseases, diabetes, gout and smallpox. The so-called black drink of the Indians, which in its effects resembled opium, was believed by some to have been made from these leaves, but by other writers is referred to various unknown roots.

In a letter written three years ago, Mr. Chas. K. Gallagher, of Washington, N. C., to whom I am indebted for some of the leaves, states that they are used extensively along the eastern coast of that State, and that they are cured for use by heating in ovens with heated stones, and constantly stirring during the process, as practiced by the Indians.

The cassena is an evergreen shrub, attaining a height of 10 to 15 feet; the leaves are alternate, coriaceous, short petiolate, about an inch long, varying in shape from roundish oval to lanceovate, obtuse and slightly emarginate, crenate with a minute spine inserted near the base of each crenature, smooth on both sides and shining above; their taste is mildly astringent and tea-like, scarcely bitterish.

It would be very interesting to ascertain whether cassena contains caffeina, like the so-called Paraguay tea, which is obtained from *Ilex Paraguayensis*, Lamb.†

Artemisia Ludoviciana, Nuttall, *Compositæ*, was sent to me, two years ago, from Kansas, where a package of it had been received by an army officer from Colorado, with the statement that it would "make the hair grow," if applied in the state of infusion. The plant is indigenous to North America, and grows from the shores of Lakes Huron and Michigan south-westward to Missouri and westward to the Pacific Ocean. It is from 2 to 4 feet high, branched; leaves lanceolate, sessile and entire above, the lower variously toothed, canescent on both sides, with a dense, closely adpressed wool; heads small, ovoid, nearly sessile, crowded in dense, somewhat leafy panicles;

* Loc. cit., p. 431.

† See the paper on Yaupon, by Mr. Henry M. Smith, in this number.

receptacle smooth. The odor reminds of wormwood, but is much weaker; the taste is similar, though but slightly bitter.

The plant has probably tonic properties, but appears not to deserve a place alongside the numerous bitter aromatic tonics at the present time medicinally employed.

Pycnanthemum linifolium, Pursh., *Labiatæ*, in some places called Virginia thyme, was sent to me, a year or two ago, as the remedy successfully used by an empiric in Montgomery County, Pa., in cases of hydrophobia. It is hardly creditable that this plant could be of any value in this fearful disease, possessing, as it apparently does, merely somewhat stimulating and diaphoretic properties, like most species of this order, in consequence of the small quantity of volatile oil which it contains. It is smooth throughout, about 1½ to 2 feet high, with the linear and sessile leaves ½ to 2 inches long, rigid, entire, three-nerved, often crowded in small axillary fascicles; the branches are erect and form a rather dense corymb; the flowers terminate the branchlets and are crowded into hemispherical heads, supported by imbricated ciliate bracts, which, like the awl-shaped calyx teeth, are rigid and sharply pointed; corolla whitish or pinkish, dotted on the inside.

Pycnanthemum incanum, Michaux, mountain mint or wild basil, is also called horsemint in some counties of Pennsylvania where *Monarda punctata*, Lin., does not occur, in place of which it is used. The two plants are easily distinguished, the bracts of the former being linear, almost subulate, while those of the monarda are leaf-like, and of a yellow and reddish color. The medicinal properties of both are probably identical.

LYCOPERSICUM ESCULENTUM.—TOMATO.

By Thomas D. McElhenie.

Extracted from his Inaugural Essay.

My experiments have been directed solely to the isolation of the organic acids contained in the fruit, the examination being undertaken at the suggestion of my preceptor, Mr. T. A. Lancaster, who had in an essay, presented in 1859, demonstrated the presence of tartaric acid, but expressed the opinion that citric acid would be found to exist in it in larger proportion, and probably in sufficient quantity to render

it available as a commercial source of the acid. The variety on which I operated was the red tomato known in market as the "Tilden"; this is quite solid, of a medium size, and contains comparatively little juice. There are other inferior varieties which contain a larger amount of juice and have more acidity of taste, and I expect these would be found to contain a larger proportion of acids; but being at the time unable to procure any of them I was obliged to content myself with an examination of the variety named.

I have employed two processes in my examination, the first being mainly that given in the British Pharmacopœia for the preparation of citric acid from lemon juice.

One gallon of juice, freshly expressed from fully ripe tomatoes, was heated to the boiling point and strained. Keeping it at about 200° F., powdered chalk was added until effervescence ceased. After cooling, the precipitate was separated by straining and filtration, and mixed with two pints of water. To the mixture was gradually added three pints of water, mixed with four fluidounces of sulphuric acid, some effervescence being produced, probably due to an excess of calcium carbonate. The mixture was boiled gently for half an hour and filtered. The filtrate, after partial evaporation, was set aside to allow any calcium sulphate which might be present to crystallize. After standing twenty-four hours the liquid was decanted—there being a slight sediment but no crystals—and evaporated until a slight film began to form on the surface, when it was again set aside.

After standing about three weeks there was a considerable deposit of brown extractive matter, having a crystalline appearance, from numerous small crystals imbedded in it. As this extractive evidently retarded the formation of crystals, and being pressed for time, I continued the evaporation, at a gentle heat, until the whole was reduced to the consistence of an extract, which I brought with me on my return to the College, for further examination.

Upon resuming operations in the laboratory of the College, I first made a preliminary examination of a small portion of the mass, according to the method directed in Will's tables, and found present citric, malic and oxalic acids. In order to isolate them, the mass was boiled with a sufficient quantity of water, and the solution filtered. A small quantity of inert matter was left undissolved. The filtrate was neutralized with calcium hydrate, and the precipitate separated by filtration, and reserved.

The filtrate from this was evaporated and boiled until the calcium citrate was precipitated, which was then washed with hot water, on the filter, mixed with a small quantity of pure water, and decomposed by dilute sulphuric acid; the calcium sulphate was allowed to deposit, the liquid was filtered, concentrated and set aside.

After three days a number of crystals were found deposited, but mixed with some viscid coloring matter.

The mother liquor was decanted, and after concentration was set aside for further crystallization. The first crystals were dissolved in a small quantity of distilled water, the solution filtered, concentrated and set aside. After standing twenty-four hours no crystals had formed in either liquid. They were then mixed, concentrated and filtered. After standing about two weeks a small quantity of crystals had formed.

These were separated and the mother liquor again concentrated, when a very small product was obtained.

Owing to press of other duties I did not purify the resulting crystals. The yield was, however, very slight, being probably ten grains from one gallon of fresh juice, equal to about nine pounds of fruit.

To obtain the malic acid, the filtrate left after precipitation of calcium citrate by boiling was concentrated, and calcium malate was separated by the addition of alcohol. Allowing it to subside, it was separated by filtration and the filtrate again treated with alcohol to separate any remaining malate. A small quantity was obtained, and after filtration it was mixed with the first product. This was then dissolved in a small quantity of hot water, the solution filtered and, after partial evaporation, mixed with an equal bulk of alcohol, and the mixture treated with dilute sulphuric acid.

The resulting calcium sulphate was separated after it had completely subsided, and the filtrate, containing malic acid in dilute alcoholic solution, was partially concentrated. After standing twenty-four hours, no crystals having appeared, it was further concentrated and set aside.

After standing about two weeks, I found it had deposited a quantity of colored inert matter. It was again partially evaporated and filtered, and in a few days a quantity of crystals were obtained.

While engaged in purifying these with animal charcoal the entire product was lost by the accidental breaking of the capsule containing the solution, so that I was unable to ascertain the exact weight of the purified product. It was, however, larger than that of citric acid.

To obtain the oxalic acid, the precipitate obtained by neutralizing the original solution with calcium hydrate was treated with hydrochloric acid, the solution diluted, filtered and neutralized by ammonia; when calcium oxalate was precipitated.

This was boiled with a solution of potassium carbonate for two hours, and filtered to separate calcium carbonate. The filtrate was then mixed with alcohol to just below the point of precipitation, and the mixture treated with dilute sulphuric acid. The potassium sulphate being insoluble in alcohol, readily subsided, leaving oxalic acid in alcoholic solution.

This was then partially evaporated and set aside. After standing several days a deposit of coloring and extractive matter was formed. This was separated, and the solution further concentrated and treated with animal charcoal.

After a few days I obtained a quantity of small crystals. These were dissolved in a small quantity of distilled water, and again treated with animal charcoal and recrystallized. The yield was about equal to that of malic acid.

The second process was as follows: One gallon of fresh juice was boiled down to the measure of two pints. This was set aside and occasionally observed. After it had been standing about two weeks I found no result except the formation of a considerable brown deposit of extractive. It was then mixed thoroughly and evaporated at a gentle heat to about three fluidounces.

This was then operated on in essentially the same manner as the first, diluting the liquid, filtering and neutralizing with calcium hydrate, and then isolating the acids from their lime salts.

The results were similar, the yield of malic acid being rather larger. It has been stated tartaric acid existed in tomatoes in small quantities. I failed to obtain it, but hope at some future time to continue an investigation of various small acid fruits, and repeat that of tomatoes with better facilities. I infer from the results obtained that the acids exist uncombined in the fruit.

It is evident, however, that tomatoes are not available as a source of either of the acids.

SUPPOSITORIA ASSAFŒTIDÆ.

By Benjamin T. Fairchild.

From the Author's Inaugural Essay.

After speaking of the value of suppositories as medicinal preparations, and advocating the use of cacao butter as a vehicle, without the addition of wax or similar substances, the author dwells on the difficulty of making suppositories containing assafœtida, and suggests, as reasons, the impurities usually present, the impossibility of obtaining and keeping assafœtida in the state of powder and its proximate composition, particularly the presence of gum and bassorin. He proposes an extract free from the impurities and the gummy constituents, for which he proposes the following formula:

℞. Assafœtida, selected tears, ... ℥iij.
Alcohol, sp. gr. 817 . . . . . q. s.

Reduce the assafœtida to a moderately coarse powder, which is accomplished by first subjecting it to a freezing temperature, then mix with an equal bulk of sand and pack it moderately in a glass percolator. Pour on alcohol until it has equally permeated the mixture and appears through the sponge at the neck of the percolator. Then, having corked and covered tightly to prevent evaporation, allow it to macerate for several days. Displace two fluid ounces, and set this aside; continue the percolation until the drug is thoroughly exhausted. Evaporate spontaneously the last obtained tincture until the alcohol has been entirely driven off. Mix the product with the percolate first obtained, and evaporate as before until the resulting extract weighs two troy ounces, or until free from alcohol. It should be kept in a wide-mouth, closely-stoppered vial.

Thus obtained, the extract has a thick, semifluid consistence, a yellow color, and consists entirely of the resins and volatile oil. It possesses in a marked degree the sensible properties of the drug. Two-thirds of a grain represents about *one* grain of the pure gum resin.

This extract possesses many advantages. It may be easily preserved, and is of such a consistence that it can be readily manipulated, requiring simply to be mixed with the excipient. By its use suppositories can be quickly prepared, elegant in appearance and satisfactory in all respects.

My attention has been called to an article in the Sept. No. Amer. Jour. Pharm., 1868, by Mr. J. B. Moore, in which he advocates the

employment of liquor potassæ in the manufacture of suppositories of assafœtida. By the use of the alkali, he saponifies the resin and volatile oil of the gum-resin and thus facilitates its admixture with the cacao butter. The use of so powerful a medicinal agent, however, is not necessitated.

By the following formula I have prepared suppositories of ten grains each:

℞. Ext. Assafœtidæ . . . . . gr. lxxx.
Olei Theobromæ . . . . . ʒv.

M. fiant suppos. No. xii.

Have at hand some warm water in a dish into which a small capsule containing the powdered cacao butter can be immersed. Remove the capsule frequently, in order that the cacao butter shall melt slowly. When it has cooled sufficiently and retains but little heat, rub up the extract with a small portion of it on a marble slab, mix this thoroughly with the reserved portion in the capsule, and pour (constantly stirring) into moulds of the capacity of half a drachm each. If necessary, during the process, the capsule may be again immersed in the warm water, great care being observed to subject the mixture to as little heat as possible.

If the moulds are perfectly dry and clean, and suspended in iced water until quite cold before pouring, the suppositories may be removed by simply pressing them at the base with the finger, and striking the rim of the mould on the counter. The resulting suppositories will present a beautiful polished surface. I have never found it necessary to lubricate the moulds in any manner.

If care is used in the above process, the resin will be found to be equally and intimately suspended in each suppository.

PHARMACEUTICAL NOTES.

By Emil Martin.

Red Precipitate Ointment.—The U. S. Pharmacopœia directs lard ointment for making unguentum hydrargyri oxidi rubri, but having had frequent difficulty in preserving the beautiful reddish color of the ointment I was induced a few years ago to institute a series of experiments to obtain a more permanent and reliable preparation. After many experiments I became convinced that a compound of castor oil and white wax would just be what I wanted.

The following is the formula I have adopted:

℞. Hydrarg. Oxid. Rub. subt. pulv., ʒi.
Olei Ricini, ʒvi.
Ceræ Albæ, ʒii.

Misce l. a.

This ointment will preserve its beautiful reddish color and proper consistence for years without change.

Fowler's Solution.—I have altered the process of the U. S. Pharmacopœia for making Fowler's Solution, it being too tedious, and requiring at least from 2 to 3 hours' boiling or the heat of a water-bath. I would therefore submit the following mode of preparation:

Take of arsenious acid, in pieces, and bicarbonate of potassa each 64 grs. Immerse them into a test-tube of the capacity of 1 oz. or more; add the smallest quantity of distilled water that is necessary, about 2 to 3 drachms, and boil the mixture over an alcohol or gas lamp. The carbonic acid will be evolved, and the combination of arsenious acid with the potassa formed immediately in less than two minutes. To the solution add sufficient distilled water and ½ oz. comp. spirits of lavender, to make it measure 1 pint, and filter. By taking 6 drachms of water, or more, I could not procure a perfect solution within an hour, even by using a test-tube. My opinion is that only a very concentrated solution of the potassa carbonate dissolves the arsenious acid so quickly.

This method will enable a skillful pharmaceutist to make a gallon of unfiltered Fowler's Solution in about 5 minutes, which is less time than many extemporaneous prescriptions require.

Indianapolis, March 22, 1872.

MEL ROSÆ.

By E. C. Trembly.

From the Author's Inaugural Essay.

My attention was first called to this subject by hearing the complaints of others, more experienced than myself, against the officinal preparation. Subsequently, I met with a sample that had been made strictly according to the standard formula, and kept in a glass-stoppered bottle, in a state totally unfit for use, owing to a deposit of saccharine matter that had gone on until the entire quantity had assumed a non-fluid condition.

The subject became interesting, and I examined it with a view to the discovery of the source of the difficulty, and, if practicable, a means whereby to improve the preparation.

My conclusions were these:—

First, that honey, by reason of its tendency to deposit, its ever-varying and uncertain composition, was most likely the cause of the trouble. Second, that the process for the extraction and preservation of the medicinal virtues of the rose, affords ample room for improvement.

To obviate the inconvenience arising from the presence of honey, I have prepared and used with great satisfaction a fluid extract of rose, to which honey is added in proper proportion, at the time when wanted for use. I desire to call special attention to this extract, for reasons given further on.

The following is the formula which is the most satisfactory of several that I have tried:—

℞.	Red Rose, No. 60, ...	℥ij.
	Stronger Alcohol, ...	f℥v.
	Glycerin Conc., ...	f℥ivss.
	Diluted Alcohol, ...	q. s.

Moisten the powder with q. s. of the strong alcohol, pack it moderately in a small glass funnel, and gradually pour upon it the remainder of the stronger alcohol.

When it has disappeared from the surface, gradually pour on a mixture consisting of five and a half fl. oz. of diluted alcohol and a half fl. oz. of glycerin, and when it has passed from the surface, continue with diluted alcohol until twelve fl. oz. of percolate have been obtained.

To the first four fl. oz. add a half fl. oz. of glycerin, and set aside to evaporate spontaneously to two fl. oz. To the remainder add two fl. oz. of glycerin, and evaporate by means of a water-bath, at a temperature not exceeding 140° Fah., to such an extent that, when added to the reserved portion and the remainder of the glycerin, the whole will weigh seven troy ounces.

In the above will be noticed my deviations from the "officinal," which, since the result has been so very satisfactory, I consider improvements.

Strong alcohol is used as the first portion of the menstruum because it is a better solvent for the volatile ingredient, and it evapo-

rates readily at low temperatures, thus rendering it unnecessary to expose that principle to more than ordinary atmospheric influences.

The employment of glycerin in the second portion of the menstruum was suggested by its known solvent power over the astringent principles, and its addition to both portions prior to evaporation, serves to protect the substance from the action of the air, to prevent separation of the particles and adhesion to the sides and bottom of the vessels employed.

To the finished product, which is free from alcohol, it serves as a sure preservative, and to enhance the preparation in appearance and taste, if not also in therapeutic value.

It will be seen also that I have duly regarded the importance of limited temperature in the evaporation of the second portion, while in the "officinal" it is left to the mercy of the entire range of the water-bath.

These restrictions, with regard to the application of heat, are perfectly clear, when the delicate character of the substance and the enhancing effect of fragrance in an article like this are duly considered.

From my experience with this extract for about eight months, and the known power of glycerin as a protective, I feel safe in asserting my belief that it will remain unchanged for almost any length of time. The fact of its being permanent, and the facility which it affords in the preparation of "Mel Rosæ," are alone sufficient to give it character; but they are by no means all the advantages it possesses. The most important are exhibited in the production of a suitable remedy, both for internal and external uses, to which the virtues of its constituents are applicable.

As an internal application to the mouth and throat, which is the chief use of "Mel Rosæ," it may be used in full strength without inconvenience, and when desired weaker, may be reduced by any of the ordinary diluents. With water it forms a delightful and efficient gargle, which is not equalled by the officinal article. As an external application, its astringency, consistence and fragrance, render it a valuable and agreeable remedy. It may be applied most conveniently by means of a camel's-hair brush. For those who may still prefer to complete their "Mel Rosæ" at once, I suggest the following:—

℞ Fluid Extract of Rose, ... ℥j.
Pure Honey, ... ℥iij.
M.

The above proportion approaches so nearly to the original that I use it for convenience. In this case it is very necessary to use *pure* honey, and to insure himself the apothecary should procure it in the comb and render it for use, as that found in the market under the name of "clarified honey" is of uncertain character, and generally contains impurities.

I also made some experiments with the officinal formula, the results of which tend to show that the tendency to change and become unmanageable is not overcome by very careful management.

I made lots with honey obtained from three sources,—one from Cuba, another from New York (wild), and a third domestic, procured in the comb and clarified by myself, and designated in the experiments, pure honey. With each of these varieties of honey I made another lot, by adding the proper proportion of the fluid extract of rose, and placed them all in a warm place on the upper shelf in the store-room. At the end of five months those made by the officinal process were in the following conditions: That made with Cuba honey in a state of fermentation and deposition; the other two but little changed, though apparently becoming gradually thicker. Those made with the fluid extract were in their normal condition. In both instances the sample with pure honey was much the nicest.

The first translation of the London Dispensatory, by Nicholas Culpepper, in 1650, contains a formula for "Honey of Roses," of which the following is a copy *verbat. et literat.*, in the quaint style of that age:—

"Take of the best Honey clarified, ten pound, the Juyce of fresh red Roses one pound, put them in a pan over the fire, and when they begin to boyl ad four pounds of fresh red Roses, the whites being cut off, let it boyl till the juyce be consumed, continually stirring it and so keep it for your use being strained."

It seems strange that such a formula should ever have existed, and still stranger is the fact that the preparation came down through nearly two centuries with but little change and scarcely any improvement. It is only of late years that it has been scientifically improved.

SYRUPUS CUBEBÆ.

By Charles L. Mitchell.

The efficacy of cubebs as a stimulating expectorant in diseases of the throat and lung passages has long been known to the medical pro-

fession. But there has been a want of some agreeable and palatable form of administering this nauseous remedy. In the form of powder it is too bulky, and its principal preparations, namely, the tincture, oleoresin and fluid extract, are all too disagreeable to suit an invalid. When mixed with syrups or other liquid vehicles, they form turbid, muddy liquids, in which their unpleasant taste is but partially disguised. Having on several occasions to prepare mixtures of fluid extract of cubebs with different syrups, the idea suggested itself that a syrup of cubebs might be made on the same plan as the syrups of tolu and ginger of the Pharmacopœia, and, in a measure, obviate the above-named objections to its use. After several experiments, the following formula gave a syrup which seemed satisfactory in almost every respect. It was clear and bright, of a rich yellow color, and seemed to possess all the virtues of the cubebs without their disagreeable taste:

Fld. Ext. Cubebs	f℥ij.
Carb. Magnesia	f℥s.
Sugar Powd.	℥xij.
Orange Flower Water	f℥ij.
Water	q. s.
Ess. Oil Almonds	gtt. j.

Rub up the fld. ext. with the carb. magnesia and then add ℥ij. of the powd. sugar in small portions. When thoroughly mixed add gradually first the orange flower water and then f℥vij. water, constantly triturating the mixture until the sugar is dissolved. Filter and add q. s. water through the filter to measure f℥xj., in which dissolve the balance of the sugar without heat. Add the oil almonds cut in a little alcohol, and again filter, adding, if neccessary, q. s. water through the filter to measure 1 pt.*

The dose of this syrup is f℥j—iv. and it may be given in even larger doses if desired. It may also be made by using the officinal oleoresin in the proper proportion in place of the fluid extract.

A very elegant syrup for coughs, hoarseness, &c., may be made from this syrup of cubebs, as follows:

℞.	Syr. Cubebæ.	
	Syr. Pruni. Virg. *aa*	f℥ij.
	Morph. Sulphat.	gr. ¼.

Dose from f. j—iv.

* 11 fluidounces of liquid and 10 troyounces of sugar will, after solution, measure nearly f℥xvii. The proposed syrup most likely, does not contain the diuretic principle, cubebic acid.—Ed. Amer. Jour. Pharm.

ON THE USE OF PETROLEUM-BENZINE IN MAKING OLEO-RESINS.

By John M. Maisch.

Read at the Pharmaceutical Meeting of April 16th.

Petroleum benzine is an excellent solvent, and has been repeatedly suggested for introduction into the pharmaceutical laboratory, particularly when, in consequence of the high tax upon alcohol, the price of ether and the other derivatives thereof was even higher than at present. It is not unlikely that the so-called benzine may have been substituted wholly or in part for ether before experiments on this subject were published.

In 1866 Professor Procter* proved that cubebs, after having been exhausted by the solvent in question, yielded to ether over 4 per ct. of cubebin, waxy matter, chlorophyll, with a little pungent resin. Mr. H. N. Rittenhouse† therefore suggested to prepare oleo-resins by employing first ether, and finish the percolation with petroleum benzine. In 1867 an interesting discussion on this subject took place at the meeting of the American Pharmaceutical Association,‡ but the facts at that time published were very few in number.

At the close of the last session of the Philadelphia College of Pharmacy two essays were presented, both treating of this question from a different standpoint, without, however, exhausting it. Notwithstanding this, the results are sufficiently interesting to deserve notice. Mr. Alfred H. Bolton treated powdered capsicum, cubebs and ginger with petroleum benzine, spec. grav. 700, and exhausted them by the process of repercolation, whereby the powders were left entirely or almost tasteless; three troyounces of the powders named yielded respectively six, four and one fluidrachms of oleo-resins.

Mr. Milton W. Roth operated on ginger and cubebs, and observed that these substances, when exhausted by petroleum benzine, spec. grav. 686 to 710, would again yield to ether some nonvolatile matter, which it is to be regretted was not sufficiently examined; the benzine oleo-resins of both drugs were perfectly soluble in ether, but the etherial oleo-resins yielded precipitates on being mixed with benzine. It follows conclusively from these experiments, what Prof. Procter (loc. cit.) proved in 1866 for cubebs, that the benzine oleo-resins are not

* American Journal of Pharmacy, 1866, 210.

† Proceedings of the American Pharmaceutical Association, 1866, p. 208.

‡ Proceedings, 1867, page 94.

identical with the officinal etherial oleo-resins, while Mr. Bolton, from the tastelessness of the residuary powder, argues or rather is inclined to regard the two products as representing the drugs in question.

The absence or presence of odor and taste, however, are too unsafe criteria of the medicinal properties, since some decidedly active principles, like santonin, the resins of jalap and scammony, &c., are tasteless or nearly so, while the experiments of Dr. Bernatzik,* Mr. F. V. Heydenreich,† and of E. A. Schmidt,‡ prove that the volatile oil of cubebs has no diuretic properties whatever, but acts as a carminative, diffusive stimulant and irritant, like most other volatile oils.

Petroleum benzine is such an excellent solvent, and at the same time so low in price, that its employment in the place of ether and even alcohol is very desirable; but, from all the knowledge we possess thus far, based upon critical experiments, the substitution of the liquids in question for pharmaceutical preparations must be regarded as inadmissible until it has been proven that the proximate principles not acted upon by the benzine are medicinally inert; odor and taste alone are insufficient to furnish this proof.

GLEANINGS FROM THE EUROPEAN JOURNALS.

By the Editor.

Analysis of the Leaves of Periwinkle (*Vinca minor, Lin.*)—The leaves, which are used in France as an anti-lactagogue, contain, according to Stanislas Martin, tannin, extractive, bitter resin, chlorophyll and wax. Bisulphide of carbon separates from the powdered leaves the resin, which has a very agreeable odor.—*Bulletin de la Soc. roy. de Pharm. de Brux.*, 1872, *Mars.* 113.

A New Acid from Aloes was obtained by Prof. Weselsky, besides orcine, on fusing aloes with hydrate of potassa. It crystallizes well and shows characteristic color reactions with ferric chloride, with alkalies in the presence of oxygen, and with alkaline hypochlorites (purple); when heated its odor resembles coumarin. Composition, $C_9H_{10}O_3$. Fused with potassa until hydrogen is generated, orcine is produced.—*Anz. Akad. d. Wiss. Wien*, 1872, *No.* iv.

* Amer. Jour. Med. Sc., cvii, 534. Proc. Amer. Pharm. Assoc., 1868, 194.
† Proc. Am. Pharm. Assoc., 1867, 337. Amer. Journ. Pharm., 1868, 42.
‡ Amer. Journ. Pharm., 1870, 222.

Sugar in Urine.—Prof. Seegen observed that the precipitation of cuprous oxide from Trommer's test by small quantities of sugar is prevented by certain constituents of urine, while uric acid produces a reaction similar to that of glucose. The author filters the urine through good blood charcoal, which is afterwards washed with a little water. The charcoal retains all the uric acid, and the washings are used for the detection of sugar, and react with Trommer's test, if the urine contains only 0·01 per ct. sugar, unless it is of a high specific gravity, which case 0·05 per ct. sugar are readily detected.

This method is not applicable for the quantitative determination, since the blood charcoal retains much sugar, which cannot be extracted by cold or hot water.—*Ibid.*, *No.* v.

Analysis of Melolontha vulgaris.—The cockchafer or May-bug contains, according to an analysis by Dr. Ph. Schreiner, considerable quantities of oxalate of lime, uric acid and urates, some leucin, sarkin and indistinct traces of xanthin, and melolonthin, a crystallizable body of the composition $C_5H_{12}N_2SO_3$.—*Annal. d. Chem. u. Ph.*, 1872, *March*, 252—262.

Pyro-catechin in Kino.—Prof. Flückiger obtained from African and East Indian kino (from *Pterocarpus erinaceus* and *marsupium*), also from butea gum, products which reacted like pyrocatechin. Wiesner examined last year* sixteen similar drugs, and observed that this compound is probably always present therein. The powdered substance is treated with ether, this solvent evaporated, and the residue dissolved in water. Dilute ferric chloride added to this solution imparts a green, limewater a red color. Since kino is obtained by evaporation of the juice of the plants, it is probable that pyrocatechin is present in the plant, and not a product formed at an elevated temperature, as has been often supposed.—*Ber. d. d. chem. Ges. zu Berlin*, 1872, 1—4, *and* 47.

Artificial Conia.—Hugo Schiff gives some additional information† on this artificial alkaloid, in the separation of which from the other products of decomposition he avoids the use of platinic chloride by repeated fractional distillation. The most important difference between the native and the artificial alkaloids lies in the absence of all

* Zeitschr. d. œsterr. Apoth. Vereins, 1871, 499.

† See Amer. Journal of Pharmacy, 1871, 161.

rotating power in the latter, which shows also slight but constant differences in the behavior to muriatic acid, nitrate of silver and chloride of gold; the effects of both upon frogs, cats and dogs were found to be identical. The author proposes the name of *paraconia* for the artificial alkaloid.—*Ibid.*, *p.* 42—44.

Estimation of Fat in Milk.—A. Schukoffsky mixes 20 cc. milk, 20 cc. ether, and 30 cc. strong alcohol, and sets the mixture aside for 24 hours; milk sugar crystallizes out and casein is precipitated in flocks, and may be readily washed upon a filter with ether and alcohol. From the filrate the ether is distilled off, then the alcohol evaporated completely in a water-bath; the residuary liquid is now treated with ether, the etherial solution removed by means of a separatory funnel, and finally evaporated to recover the fat.

The author claims for this method greater accuracy than can be attained by following Tolmatsheff's (treatment of milk with sulphate of magnesia), Haidlen's (with gypsum), Trommer's (with marble dust), or Hoppe-Seyler's method (treatment with potassa solution).—*Ibid.*, 75—77.

Estimation of Glucose.—F. Jean dissolves the protoxide of copper, obtained by boiling the glucose with a solution of tartrate of potassa, and copper, in muriatic acid; this solution is rendered strongly ammoniacal and mixed with a solution of nitrate of silver in ammonia. Metallic silver is precipitated, 5 equivalents (315) of which correspond with one equiv. (100) of glucose; 100 cane sugar after conversion into glucose yield 316 silver.—*Journ. de Pharm. et de Chim.*, 1872, *Mars*, 206.

Manna of the Linden-tree.—Boussingault observed, near Liebfrauenberg, in 1869, upon the leaves of a linden-tree, a viscous matter which he found to correspond closely in composition with the manna of Mount Sinai, as ascertained by Berthelot:*

	Linden Manna, collected		Tamarix Manna
	July 22,	August 1st, 1869.	of Mount Sinai.
Cane Sugar,	48·86	55·44	55
Invert Sugar,	28·59	24·75	25
Dextrine,	22·55	19·81	20

—*Ibid.*, 214—218.

* American Journal of Pharmacy, 1862, p. 71.

An Egyptian Perfume, examined by Personne, was in the form of a cake with a rugose surface, of a chocolate color and a resinous appearance upon the fracture, with the central portion white; it was found to be composed of a mixture of fat, chalk, frankincense and myrrh, with a small quantity of benzoin. Some time after the mixture has been made, a lime soap is formed, which prevents the rapid combustion, and keeps the mass from becoming too soft. This mass is well known in Egypt and very common among the fellahs; its Egyptian name, which is pronounced *boohkurre-bar*, signifies Arabian or border perfume.—*Ibid.*, 254—256.

Turbid Wine of Colchicum Seeds contains, according to Vulpius, a large number of minute yeast cells, originating, probably, from the nitrogenated principles of the seeds. They will readily pass through the filter, but may be removed by agitating the turbid wine with finely powdered colchicum seeds, in the proportion of about 1000 to 1, and filtering immediately and repeatedly through the same filter, after which it will remain clear for many months.—*Pharm. Centr. Halle*, 1872, *No.* 10.

A Histological Description of Condurango Bark has been furnished by Prof. Dr. A. Vogl. From its structure the author is inclined to refer it to an euphorbiaceous plant. The dichotomously branched laticiferous vessels have the same character as those usually met with in *Euphorbiaceæ*.*—*Zeitschr. d. œsterr. Apoth. Ver.*, 1872, *No.* 5.

Guaco Sold as Condurango.—It appears that in the European market the stalks of *Mikania Guaco*, H. B. K., nat. ord. *Compositæ*, are sold as condurango.†—*N. Jahrb. f. Pharm.*, 1872, *Feb.*, 68.

Analysis of Sarracenia purpurea.—E. Schmidt found in it cellulose, gum, albumen, resin, sarracenic acid, which is coloring matter, yielding with alum a nice yellow lake, and which is soluble in alcohol, little in ether and benzine; tannin, fat, wax, 11·43 per ct. water, and 3·32 per ct. ashes, consisting of lime and potassa silicates, phosphates

* The description corresponds with that variety of condurango which has been introduced here under the name of *Mata perro*, which comes from an *Asclepiadeacea*. See this Journal 1871, p. 568.

† We have not met with this drug in our market as the now notorious cancer specific, although we have seen not less than five or six barks which, on the west coast of South America, are known by the name of condurango.—Editor Amer. Journ. Pharmacy.

and sulphates, and traces of chlorides.—*N. Jahrb. f. Pharm.*, 1872, *Feb.*, 98, from *Gaz. Méd. de Strassbourg*, vii, *p.* 78.

Extract of Meat.—Dr. R. Goddefroy analyzed some La Plata extract of meat, prepared by A. Benites & Co., Buenos Ayres, and also some Fray-Bentos extract. The results are as follows:

	La Plata.	Fray-Bentos.	Limits in Genuine Extracts, according to Liebig.
Water,	16·92 per ct.	18·69 per ct.	16—21 per ct.
Ashes,	19·07 "	21·14 "	18—22 "
Combustible compounds,	64·00 "	60·16 "	
Extractive soluble in 80 per ct. alcohol,	64·28 "	Not estimated.	56—66 "
Chloride of sodium,	2·8 "	1·99 per ct.	None.

The author recommends the La Plata as equal to the Fray-Bentos extract and as reliable, as long as it is analyzed by chemists like Professors Depaire and Jouret.—*Zeitschr. d. œsterr. Apoth. Ver.*, 1872, *No.* 7.

Contributions to the Knowledge of the so-called False Cinchona Barks.—Under this title Professor Flückiger publishes in Neues Jahrbuch für Pharmacie, 1871, Nov. and Dec., p. 291—302, a most important paper, from which we condense the following results:

Dr. O. Hesse discovered, in 1870, in *quina blanca* from Payta, the alkaloid paytina, $C_{21}H_{24}N_2O+H_2O$, of which it contains $2\frac{1}{2}$ per cent. The tree from which it is obtained is supposed by Dr. Flückiger to belong to the *Cinchonaceæ*, but not to the genus *Cinchona;* but the bast fibres have the same structure as those of the true cinchonas. The alkaloid differs by 1 equiv. of carbon from cinchonia, and the bark yields, when heated in a test-tube, a brown tar, not a bright red sublimate.

In a copper-colored bark from the London market, provisionally named *china cuprea*, Dr. O. Hesse found 1 per ct. of quinia, besides a little cinchonia; the same bark was already in 1857 observed by J. E. Howard and found to contain quinia. Dr. Flückiger finds the structure to be entirely different from cinchona, the bast fibres in particular having large cavities of the same or even larger diameter than the thickness of the walls of the bast cells. The bark shows Grahe's reaction (bright red colored tar, when heated).

The differences hitherto recognized between genuine and false cinchona barks is obliterated by these investigations; the two barks in

question appear to form a connecting link between the barks of cinchona and other botanically closely allied genera; while one bark re-resembles in structure true cinchona without containing any cinchona alkaloid, the other bark contains two of these alkaloids but has a structure different from cinchona.

THE MOTHER PLANT OF WORMSEED.

Abstracted from a Paper by Professor Willkomm.

By Professor Flückiger.

Wormseed is exclusively brcught from Central Asia, and consists of flower-buds of a species of *Artemisia*, which is now for the first time described* by Willkomm, Professor of Botany in the University of Dorpat. The plant was brought there by Professor Petzholdt, who had spent the summer and spring of the last year in Turkestan. He had the plant collected there by the people gathering wormseed near the small town of Turkestan, about 44° north lat. and 68° east long., that is to say, between the Aral Sea and the Lake Balkash; the area of the plant probably extends much more eastward. Willkomm gives a full description and diagnosis of the *Artemisia* under examination, of which we will endeavor to abstract the most important parts.

The genus *Artemisia* includes a large number of species, divided by systematic botanists into several tribes. *Seriphidium* is the name of one of these tribes; the species which belong to it are provided with hermaphrodite, homogamous florets. They are inserted on a rather stalk-like receptacle, not a disk, each floret being accompanied by a small bract. The apex of the short receptacle, however, is devoid both of florets and bracts. The small capitula or heads of the *Seriphidia* exhibit only a few florets, and are arranged so as to form paniculated spikes. The florets and the bracts, as well as the involucral scales, show numerous glands or papillæ, containing an aromatic resinoid substance. The bifurcation of the style becomes obvious only when the floret is fully developed.

The plant from which wormseed is collected is strongly shrubby, its numerous yellowish stems and branches being woody in their lower parts, and attaining a height of from 1 to 1½ feet. The branches are densely tufted; the whole plant, indeed, forms a broom, or at least

* In the *Botanische Zeitung* of H. von Mohl and A. de Bary, 1872, March 1st, p. 130.

each stem may be compared with a little broom. The pinnate leaves are thickish, of a greyish green hue, although they are beset with only a few scattered soft hairs. In the youngest state, the leaves of short shoots are densely covered with grey felted hairs, whereas the fully-developed leaves, as well as the involucres and florets, are entirely naked. This is one of the most prominent characters of the plant under notice, and, as it is well known, of commercial wormseed.

The author had not before him fully developed florets; but in these there occurs the strange fact that the style is club-shaped, much shorter than the stamina, and *enclosed in a very thin transparent membrane*, which disappears when the style begins to be separated into two stigmas. Willkomm has likewise met with a similar membrane in *Artemisia Barrelieri*.

The plant of Turkestan is very closely allied to some other *Artemisiæ*, especially to *A. Lercheana*, Stechm., *A. pauciflora*, Stechm.,—both figured in Gmelin's "Flora Sibirica," tab. 50 and 52, the former also much better in Ledebour's "Icones Floræ Rossicæ," tab. 488. Another species resembling wormseed plant is *A. monogyna*, Kit.; but all these are covered with a dense felt of whitish hairs. As to the florets of the mother plant of wormseed, Willkomm thinks they can scarcely be distinguished from those of *A. Barrelieri*, Bess., which he had observed in Spain. But in external appearance the two last-named species are widely different.

Berg, in his "Darstellung und Beschreibung der officinellen Gewächse," etc., 1863, plate xxix. c., having pointed out that the plant yielding wormseed was not known, had bestowed upon it the anticipatory name of *A. Cina*. Willkomm now maintains this name, but then Berg's name should be discarded, and the plant be termed *Artemisia Cina*, Willk. (Berg.) Its full diagnosis is as follows:—

"Suffruticosa, caudice crasso tortuoso, caulibus multis basi lignosis, 3–5 decim. longis, basi foliatis, inde a medio ramulo spermultos floriferos erectopatulos paniculam scopæformem formantes edentibus; foliis basilaribus inferioribusque longe petiolatis bipinnatisectis arachnoideo-villosulis, mediis pinnatisectis floralibusque integris glaberrimis, segmentis omnium linearibus obtusis cartilagineo-mucronulatis, crassiusculis, margine revolutis et nervo medio crasso instructis; foliis basilaribus inferioribusque turiones foliosos incano-tomentosos, superioribus foliorum fasciculos glabros ex axilla edentibus; calathiis numerosis secus ramulos laxe spicato-glomeratis vel simpliciter spicatis, sessilibus

erectis, versus anthesin 3 millim. longis oblongis, squamis glaberrimis circiter 12 oblongo-linearibus obtusissimis valde concavis laxe imbricatis, late scarioso-marginatis, dorso vitta viridi in utraque pagina densissime glanduloso-papillosa notatis; floribus 3–6 in squamarum summarum axilla sessilibus per paria dispositis, ovario obovato vix quartam corollæ obconicæ partem longitudine æquante, dentibus corollæ obtusis triangularibus tubo quadruplo brevioribus extus papillis resinosis crebris obsitis."

YAUPON.

By Henry M. Smith.

Yaupon is the name given by the Indians to the leaves of the *Ilex Cassine*, a plant indigenous to the Southern States, but found only along the coast, from Florida to North Carolina. Mixed with the leaves of other species of the same plant, *Ilex vomitoria* and *Ilex dahoon*, it formed "Cassena," the basis of their famous "black drink," which was used by the red men as a medicine, and as a state drink at some of their religious festivals.

Its constituents are, by analysis, as follows:

Volatile oil,	0.011
Wax and tar,	0.466
Resin,	3.404
Chlorophyll,	2.491
Caffein,	0.122
Tannic acid,	2.409
Brown coloring matter,	4.844
Gum, pectin, etc.,	8.244
Extractive matter,	10.149
Extractive matter, (starch, pectose, tannin, etc.)	15.277
Nitrogenous matter,	8.138
Woody matter,	34.854
Moisture,	7.595
Ash,	3.935
Total,	101.939

The volatile oil has a very agreeable odor, perhaps faintly resembling that of raw tobacco, but having also a tea-like smell. The quantity obtained was too small to determine its physical characteristics, but it was quite soluble in water, and a very small quantity gave a

decided odor to a large volume of that fluid. The large quantity of resin is worthy of attention, as it is probably derived in large part from the oxidation of the volatile oil; and it suggests that aroma and medicinal properties of the tea might be improved by a more careful preparation of the leaves.

The amount of caffein is small, ordinary tea containing 2·5 to 6 per cent. Stenhouse found 0·13 per cent. in Paraguay tea, (*Ilex Paraguayensis*,) which agrees very closely with the amount found in Yaupon. A trace of caffein was found in the distillate, with the volatile oil, proving that this alkaloid is carried off mechanically when tea or coffee is boiled.

The percentage of tannic acid does not include that rendered insoluble by combination with legumin, etc.

The large amount of woody matter shows that the tea might be improved by more careful picking and manipulation of the leaves.

Yaupon is largely used in the South as a substitute for tea, coffee, and other stimulants; and it is reported to be very beneficial to inebriates who wish to cure themselves of their love of liquor.—*Scientific American*, 1872, *March* 30.

NOTES ON THE PROPERTIES OF THE GERANIEÆ.

By John R. Jackson, A. L. S.,

Curator of the Museums, Kew.

Geraniums, or more properly pelargoniums, are with us the most popular and best known garden plants. The order to which they belong, including the tribes *Oxalideæ* and *Balsamineæ*, number about 750 species. It is represented with us by the crane's bill (*Geranium*), the stork's bill (*Erodium*), the wood sorrel (*Oxalis*), and the balsam (*Impatiens*). It is, however, more particularly of the tribe *Geranieæ* that we have now to speak. It is widely distributed in various parts of the world, the plants often assuming very different forms from those we are accustomed to recognize as members of the tribe amongst our native or cultivated garden plants. The family is certainly not valuable, either in a medicinal or economic point of view, yet its characteristic properties are astringent and aromatic, many having a fragrant and some a musky odor. None of the British species are used in any way by us; but in North America *Geranium maculatum*, L., known as the crane's bill, crowfoot, or alum root, is considered a medicinal

plant, and is used as a powerful astringent in chronic diarrhœa, leucorrhœa, etc., and as a substitute for kino, catechu, and the more expensive remedies of a similar class. Being devoid of any unpleasant taste, it is well adapted for infants and delicate persons. The root is the part employed, and it is given either in substance or in the form of tincture, decoction or extract.

The crane's bill is described in Wood and Bache's "Dispensatory," and is used throughout the United States, not only as an officinal medicine, but also as a popular domestic remedy. For administering to children it is usually boiled in milk.

In South Africa, which is the headquarters of the genus *Pelargonium*, several of the species are used medicinally; thus *P. triste*, Ait., has a tuberous, slightly astringent root, which, when dried and pulverized, is used in diarrhœa and dysentery; and it has also been recommended as a vermifuge. These roots, in a fresh state, have been eaten by the natives as food. Another tuberous-rooted species is *P. antidysentericum*, E. et Z.; these roots are called *t'Namie* by the natives of Namaqualand, where the plants grow; they are often as large as a man's hand, and are boiled in milk and used in dysentery. Amongst other medicinal *Pelargoniæ* of the Cape may be mentioned *P. scutatum*, Sweet., called by the colonists the Kaffir sorrel. It is a shrubby plant common in many parts of the eastern districts. The leaves are said to have astringent and antiseptic properties, and to be useful in cases of sore throat, etc. From the petals of the flowers a juice of a blue color can be expressed, which Burchell, the celebrated South African traveller, suggested might be found useful for painting. *P. cucullatum*, Ait., is also a shrubby plant, very common on the side of Table Mountain: "It has been recommended in the form of decoction, or as an enema in colic, nephritis, and suppression of urine, and is also an excellent emollient." It is said that this plant was formerly exported to Holland as *Herba Althææ*. *P. anceps*, Ait., is an herbaceous plant, with small crimson flowers; it is called *Roode Rabassam* by the natives, who use it for promoting parturition and to procure abortion.

P. roseum, likewise a Cape species, is valuable on account of its yielding an essential oil much used in perfumery. This plant is very extensively cultivated in the south of France and by the rose growers in Turkey. The oil is obtained from the leaves of the plant, one hundredweight of the latter yielding by distillation about two ounces

of essential oil; it has a smell very similar to otto of rose, and is much used for adulterating that valuable article; it is, moreover, said to be frequently adulterated itself with the oil of *Andropogon*, which is considerably cheaper, and is imported in large quantities from the East.

Next to the genus *Pelargonium*, the most interesting, perhaps, with regard to its products is *Monsonia* or *Sarcocaulon*. The plants have mostly fleshy spiny stems, which secrete or deposit a large quantity of a waxy or resinous substance; *S. L'Heritieri* and *S. Patersoni* are, perhaps, more highly endowed with this power than any other species. This substance seems to be formed in the bark, and in such large quantities, that the stems become, to all appearance, a mere mass of wax, moulded to the form and shape of the stem. It is of a greenish-yellow color externally, in fracture very like that of gamboge but rather more transparent; it burns like caoutchouc, but with a slightly aromatic smell. In alcohol it becomes softish and partially plastic, and a similar effect is produced upon it by boiling water. It breaks with a short fracture, like a resin, so that it seems to possess a combination of waxy, resinous and elastic properties. As the stems of the plants become old the vegetable tissues seem to be displaced by the formation of this substance, so that becoming a mass of inflammable matter, they are used by the natives for candles or torches. Some fine specimens of this substance are in the Kew collection. The root and herb of *Monsonia ovata*, Cav., called by the Hottentots *Keita*, are astringent, and are used by them in dysentery.—*Pharm. Jour. and Trans., March* 16, 1872.

THE EUCALYPTUS GLOBULUS AND ITS USE IN MEDICINE.

The employment of the *Eucalyptus globulus* in therapeutics is the subject of a very important memoir by Professor Gubler, in which he expresses an opinion that it will probably prove to be a remedy worthy of being ranked with the cinchona alkaloids. We take the following particulars from the *Journal de Pharmacie et de Chimie* for December:

The *Eucalyptus globulus* belongs to the Natural Order *Myrtaceæ*, which furnishes the clove (*Caryophyllus aromaticus*), oil of cajeput (*Melaleuca minor*), and the pimento (*Eugenia Pimenta*). It is one of the noblest representatives of a genus that contains upwards of a hundred species. It is often gigantic in size, and is impregnated

throughout with an aromatic substance, which is present, however, in smaller proportions in the wood and the bark than in the flowers and the leaves. The tree is easily acclimatized in the southern provinces of France, Corsica, Algiers and Spain, being known in the last named country under the popular name of the fever tree.

An essential oil, having the formula $C_{12}H_{40}O$, is obtained from the leaves by distillation, which has been named by Cloetz, who investigated its composition, eucalyptol. The results of this investigation have already been printed in this Journal.* Eucalyptol has an agreeable, fragrant, aromatic and peculiar odor, which by some has been compared to camphor, by others to rose or lavender. It has an aromatic, warm and bitter flavor, accompanied by a slight acidity and freshness at the back of the throat; when in excess, however, it produces a burning sensation, and an increased secretion of saliva. Doses of from two to four grams and upwards cause a disturbance of the digestion, sometimes succeeded by a diarrhœa in which the motions, like the eructations, recall the smell of the eucalyptus. Large doses sometimes cause headache, excitement and fever, with accelerated respiration, thirst, sickness and generally sleepiness; upon anæmic persons, however, it acts as a narcotic. The symptoms rarely last more than a few hours. In most cases one to two grams can be tolerated at first, and in all cases the patient easily becomes habituated to its use. The physiological action of the leaves is very similar, and it has been found that they can be taken by fresh patients in larger doses than the free essence.

In Australia the *Eucalyptus globulus* is the popular remedy for fevers, and in Europe it has been used successfully in the treatment of diseases prevalent in marshy districts. M. Gubler quotes the testimony of several medical practitioners, who say that it produces marvellous results in cases of intermittent fevers, especially obstinate ones where sulphate of quinine has been used without effect. He also points out that in marshy districts near to eucalyptus forests intermittent fevers are unknown—a result that he attributes either to the neutralization of the effluvia by the aromatic emanations from the trees, or else to the sweetening of the stagnant waters by the leaves and pieces of bark that fall into them, such waters, according to travellers, being perfectly potable. Efforts are therefore being made to

* Pharm. Jour. 3d Ser. Vol. I. p. 78.

increase the number of eucalyptus plantations in the marshy and insalubrious districts of Corsica and Algeria.

The tincture, infusion and decoction of eucalyptus are used for disinfecting the dressings of wounds. M. Mares has employed fresh young leaves as a local stimulant to small wounds slow to cicatrize. Dilute essence, infusion and distilled water of the leaves are used as astringents and hæmostatics. The preparations are also used with success in purulent catarrhal affections of the urethra and vagina. The leaves, when masticated, perfume the breath, and harden spongy and bleeding gums.

The presence of the essence of eucalyptus retards in a remarkable manner the development of cryptogams. According to M. Gubler, solution of salts of strychnia, atropia, morphia and aconitia, prepared for hypodermic injection with the distilled water of the leaves, remained clear for many weeks; while others, prepared at the same time with pure water, became turbid with confervoid growths in a few days.

The following are the pharmaceutical preparations of eucalyptus that have been found convenient in use:—

1. The *powdered leaves*, which is the best form, and is prescribed in doses of four, eight, twelve and even sixteen grams a day.

2. The *infusion* and *decoction*, which M. Gubler recommends should not be submitted to too much heat, in order not to drive off the essence.

3. The *distilled water* of the leaves, an agreeable vehicle for stimulants.

4. An *aqueous maceration of eucalyptol*, with the same properties.

5. The *aqueous extract*, recommended by M. Carlotti to prevent the return of intermittent fever.

6. The *alcoholic extract*, *tincture* and *alcoholate*.

8. *Eucalyptol*, which is administered either in pills or in capsules.

8. *Inhalations* of eucalyptol.—*Pharm. Jour. and Trans., March* 2, 1872.

MRS. WINSLOW'S SOOTHING SYRUP—A POISON.

By W. F. McNutt, M. D., San Francisco.

My attention was first called to the baneful effects and the enormous consumption of this nostrum, by an article in the November, '69, number of the *California Medical Gazette*, by Dr. Murray, U. S. A.

Dr. Murray had been called to see a child aged six months, apparently in a dying condition from the effects of some narcotic poison. He found that this Soothing Syrup was the only medicine which had been administered, and of it the child had taken two teaspoonfuls within ten hours. There was remaining in the vial from which the two teaspoonfuls had been taken, ten drachms, which yielded, on analysis by a skillful chemist, nearly one grain of morphia and other opium alkaloids to the ounce of syrup. "The specimen of Soothing Syrup analyzed was made by Curtis & Perkins, of New York, who are the only manufacturers."

On the 7th of February, Mrs. W. came into my office with a child five months old in her arms, which, she said, was very sick; that it slept constantly, and would not nurse or move for several days. The child was breathing heavily and its pupils were closely contracted. I asked if the child had been taking opium; she replied that it had taken nothing but soothing syrup. She said that on the 5th, two days before, the child was restless and its bowels costive, and that a neighbor had advised her to give it a teaspoonful of soothing syrup, saying it was excellent to regulate the bowels. (She had previously given the syrup in small doses.) She administered the syrup twice during the day, a teaspoonful each time; the child slept heavily all night, and would not nurse when roused. Not suspecting the syrup had anything to do with its sleeping, she gave on the 6th, at different times, three teaspoonfuls more. The child refused to nurse when roused. On the 7th she gave it another teaspoonful, before bringing it to my office. I told her that the child was poisoned by morphia, of which soothing syrup contained a large quantity. The mother was surprised and alarmed, and had had no idea that there was morphia in soothing syrup.

I ordered brandy and coffee, the bowels to be kept open by injections, and the child to be kept awake as much as possible. The child recovered, but was not able to nurse until the 10th. This is but one of the many instances of poison by this nostrum.

Dr. R. S. Maxwell, my partner, was called to see a child five weeks old, to whom half a teaspoonful of soothing syrup had been given a few hours previous. The child was already past all help, and died in a few hours. No other medicine had been given.

In my own case, the child five months old had taken two teaspoonfuls on the 5th, three on the 6th, and one on the 7th, making six tea-

spoonfuls from ten o'clock on the 5th until 8 A. M. on the 7th; consequently it got over half a grain of morphia in the space of forty-six hours. As susceptible as children are to the influence of opium, it seems almost impossible that the child could have lived. In fact, we know that it could not have lived, had not the tolerance of the poison been induced by previous doses in lesser quantities. We may add that there are very few children at the age of six months, who would not be poisoned to death, were they to take the syrup as directed, (namely: six months old and upwards, one teaspoonful three or four times a day until free from pain,) unless a tolerance of the drug be induced by its previous administration in small doses. The morphia in a teaspoonful of soothing syrup is equal to about twenty drops of laudanum. Here we have thousands of mothers and nurses, ignorant alike of the ingredients and the effects of this deadly nostrum, directed to give a child six months old morphia equal to twenty drops of laudanum, while a physician would not dare to give a child of that age more than three drops.

Dr. Murray, in the article already referred to, says: "I have ascertained that there are about one hundred thousand two-ounce bottles of it sold annually in this city, containing about one hundred and eighty thousand grains of morphia, which are given annually to the babies of this State."

If the babies of this State consume two hundred thousand ounces of soothing syrup, it is but fair to assume that there is seventy-five times that amount used in the whole United States, which would make 15,000,000 ounces of syrup, or about 14,000,000 grains of morphia. Setting aside the direct cost of this nostrum, it would be scarcely possible to estimate the damages which the people of the United States sustain indirectly from its use.

How much the early resort of our youth to tobacco and alcoholic stimulants is due to the previous use of the opium contained in this nostrum is probably not realized. But, that it has much to do with it, any one can believe, who has seen with what avidity the opium eater, when deprived of his opium, will fly to alcohol, ether, hashish, tobacco, or anything that will lull the eternal craving of the appetite for something, other than wholesome food. It would be also impossible to estimate the number of children it sends to the grave before they reach their second year. But that the administration of 14,000,000 grains of morphia annually to the babies of the United

States, by persons ignorant of its effects, must send its thousands, any reasonable person will be inclined to grant. But a still graver question presents itself, namely: How much of the physical disease, of the drunkenness, of the degradation and of the vice, and how many of the weakened intellects, are due to the use of the soothing syrup in infancy? Probably enough to make it a wiser Legislature that will prohibit the manufacture of any nostrum for children which contains opium, than the Legislature that passes a prohibitory liquor law for the benefit of its adults.—*Pacific Med. and Surg. Journ* 1872, Apr.

Varieties.

The Pharmacopœia of 1870.—In anticipation of the approach of another course of instruction in the Colleges of Pharmacy and of Medicine it is exceedingly desirable that we should have the revised Pharmacopœia. There will probably be ten schools of pharmacy in operation next winter, to say nothing of the still more numerous medical colleges, in every one of which the instructions in chemistry, materia medica and pharmacy are largely influenced by the national standard. Now, when it is remembered that the hundreds of young men who will complete their college course next spring will all have to unlearn some portion of their instructions, and will, in fact, almost from the time of their issuing from the colleges, be behind the times in regard to some of the officinal processes, the corrected nomenclature, and other things which enter into the decennial revision, we think no one can fail to recognise the importance of the work being put into print. It is well known that the labors of the Committee have been so far completed that the revised work is already engrossed for the printer, and, with great respect and deference to the Committee who have spent so much labor upon it, I will close with the inquiry, which is heard from all quarters: When will the Pharmacopœia be issued?

EDWARD PARRISH.

Dextrin.—The *Polytechnisches Journal* recommends the preparation of dextrin by mixing 500 parts potato starch, 1500 parts cold distilled water, and 8 parts pure oxalic acid in a vessel on a water-bath, and heating till the mixture does not show the starch reaction when tested with iodine. When this point is reached the vessel is removed from the water-bath, and the liquid neutralized with pure carbonate of lime. Having stood for two days, the liquid should be filtered, and the filtrate evaporated on a water-bath till it becomes of a pasty consistency. It can then be removed with a knife and dried into a cake in a warm place. Two hundred and twenty parts of pure dextrin are thus obtained. —*Scientific American, April* 20, 1872.

Ether Glue.—An excellent liquid glue is made by dissolving glue in nitric ether. The ether will only dissolve a certain amount of glue, consequently the solution cannot be made too thick. The glue thus made is about the consistency of molasses, and is doubly as tenacious as that made with hot water If a few bits of India rubber, cut into scraps the size of buckshot, be added, and the solution be allowed to stand a few days, being stirred frequently, it will be all the better, and will resist the dampness twice as well as glue made with water.—*Ibid.*

Silvering of Glass —Dr. Bothe.—This lengthy paper contains several hints and practical receipts for the purpose of silvering glass, from which we quote the following particulars: Ingredients and apparatus required—Sal-Seignette (tartrate of potassa and soda), solution of that salt in water, 1 grm. to 50 of water; of ammonia liquida, 50 c.c.; solution of nitrate of silver, 1·8; glass flask of 1000 c.c. cubic capacity for the reduction fluid, and a little flask for the silvering fluid. Reduction fluid—Mix with 900 c.c. of pure distilled water 90 c.c. of the above-mentioned solution of the Seignette salt; pour this liquid into the glass flask, and let it boil violently; while thus boiling add 20 c.c. of the solution of nitrate of silver, and continue the boiling for some ten minutes longer; this fluid, which now contains oxytartrate of oxide of silver, can be kept for any length of time, and improves on keeping; if left in the flask, which for convenience should be labelled (1), the liquid has to be filtered before use through filtering paper. The silvering fluid is made in the following manner: Nitrate of silver is first dissolved in distilled water, and next ammonia added until the precipitate at first appearing is again dissolved; the liquid is again filtered, and diluted with so much water that 1 grm. of the silver salt makes 100 c.c. of solution. For the purpose of silvering, equal quantities by bulk of the fluids alluded to are first each separately filtered, and next poured together into a vessel of suitable size and shape, wherein the glass plate to be silvered is then placed; this glass should be first scrupulously cleaned.—*Chem. News, Lond., March* 15, 1872, from *Bay. Ind. und Gew. Blatt.*

AN ACT

To Regulate the Practice of Pharmacy and Sale of Poisons and to Prevent Adulterations in Drugs and Medicinal Preparations in the City of Philadelphia.

Whereas The safety of the Public is endangered by want of care in the sale of Poisons whether to be used as such for legitimate purposes or employed as medicines and dispensed on the prescriptions of Physicians; *and whereas* The power of Physicians to overcome disease depends greatly on their ability to obtain good and unadulterated Drugs and skilfully prepared Medicines; *and whereas* The class of persons to which the preparation and sale of Drugs Medicines and Poisons properly belong known as Apothecaries Chemists and Druggists or Pharmacists should possess a practical knowledge of the business and science of Pharmacy in all its relations; therefore

Section I. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met and it is hereby enacted by the Authority of the same* That hereafter no person whatsoever shall open or carry on in the City of Philadelphia any Retail Drug or Chemical Store as the proprietor or manager thereof nor engage in the business of compounding or dispensing Medicines on prescriptions of Physicians or of selling at retail any Drugs Chemicals Poisons or Medicines without having obtained a written certificate that he is duly competent and qualified to do so from "The Pharmaceutical Examining Board" and having been duly registered as hereinafter provided.

Section II. That there shall be established in the City of Philadelphia a Board to be styled The Pharmaceutical Examining Board to consist of five persons three of whom shall constitute a quorum who shall be appointed by the Mayor of the City of Philadelphia out of the most skilled and competent Pharmacists [at the time engaged in said business] in the said City who shall be and constitute the said The Pharmaceutical Examining Board as aforesaid. The said persons shall hold their office for three years and until their successors are duly appointed and qualified. They and each of them shall within ten days after their appointment take and subscribe an oath or affirmation before the Clerk of the Court of Quarter Sessions of the Peace for the County of Philadelphia that they will faithfully and impartially perform the duties of their office; and any vacancy occurring in said Board shall be filled for the unexpired term by the Mayor of the said City.

Section III. That the said The Pharmaceutical Examining Board shall keep a Book of Registration open at some convenient place of which due notice shall be given by advertisement in at least two of the public newspapers of the City of Philadelphia in which Book shall be registered the name and address of every person duly qualified under this Act to conduct the retail Apothecary business. And it shall be the duty of all persons now conducting or who shall hereafter conduct the business of retail Apothecaries in said City to appear before said Board and be registered within thirty days after such notice.

Section IV. The said Pharmaceutical Examining Board shall be entitled to demand and receive from each applicant for such registration and the certificate hereinafter provided for a fee not to exceed five dollars ($5) to be applied to the payment of expenses arising under the provisions of this Act.

Section V. The duty of the said The Pharmaceutical Examining Board shall be to examine every person who shall desire to carry on the business of a retail Apothecary or that of retailing Drugs Chemicals or Poisons or of compounding and dispensing Physicians' prescriptions touching his competency and qualification for that purpose; and upon the said Board or a majority of them being satisfied of such competency and qualification they the said Board or a majority of them shall grant to such person a certificate of his competency and qualification which certificate shall entitle the holder thereof to conduct and carry on the business as aforesaid.

Section VI. That if any person should hereafter engage in the business of an Apothecary or of retailing Drugs Chemicals and Poisons or of compounding and dispensing the prescriptions of Physicians either directly or indirectly without having obtained such certificate as aforesaid such person shall be liable to a penalty of one hundred dollars ($100) for each and every week during which they shall continue to carry on such business without such certificate as aforesaid to be recovered by a suit to be brought before any Alderman or in any competent court in said city by the said Board or by any other person for the use of the Guardians of the Poor for the City of Philadelphia to whom the said penalties are to be paid.

Section VII. That the foregoing provisions of this Act shall not apply to or affect any person who shall have a diploma or certificate from any incorporated College or School of Pharmacy whose diploma or certificate is based upon a regular term of service in the Drug and Apothecary Business or who shall be engaged in the Drug and Apothecary Business prior to the passage of this Act except only in so far as relates to registration as provided for in Sections III and VI, of this Act.

Section VIII. That no person not a Graduate in Pharmacy shall be allowed by the proprietor or manager of any store to compound or dispense the prescriptions of Physicians [except as an aid under the immediate supervision of said proprietor or his qualified assistant] unless he has been at least two years apprenticed in a store where medicines are compounded and dispensed and has attended one full course of lectures on Chemistry Materia Medica and Pharmacy; and no proprietor shall leave his store in charge of any but a qualified assistant. Any person violating the provisions of this Section of this Act shall be deemed guilty of misdemeanor and on conviction thereof be liable to a penalty not exceeding one hundred dollars ($100).

Section IX. A qualified assistant in the meaning of this Act shall be either a Graduate in Pharmacy holding a diploma or certificate of competency based upon a regular term of service to the Drug and Apothecary Business from an incorporated College or School of Pharmacy or a person holding a certificate of competency and qualification from The Pharmaceutical Examining Board appointed under this Act.

Section X. That any person who shall knowingly wilfully or fraudulently falsify or adulterate or cause to be falsified or adulterated any drug or medicinal substance or any preparation authorized or recognized by the Pharmacopœia of the United States or used or intended to be used in medical practice or shall mix or cause to be mixed with any such drug or medicinal substance any foreign or inert substance whatsoever for the purpose of destroying or weakening its medicinal power or effect and shall wilfully knowingly or fraudulently sell or cause the same to be sold for medicinal purposes shall be guilty of a misdemeanor and upon conviction thereof shall pay a penalty not exceeding five hundred dollars ($500) and shall forfeit to the Commonwealth all of the articles so adulterated.

Section XI. Nothing contained in this Act shall apply to or in any manner whatever interfere with the business of any practitioner of Medicine who does not keep open shop for the retailing dispensing or compounding of Medicines and Poisons nor prevent him from administering or supplying to his patients such articles as may seem to him fit and proper nor shall it interfere with the making and dealing in proprietary remedies [popularly called Patent Medicines].

Approved April 4th, 1872.

Pharmaceutical Colleges and Associations.

Philadelphia College of Pharmacy.—The Spring course on Botany, which commenced on April 3d, is better attended than in previous years, the number of students being about 30. Every week one lecture is delivered, and an excursion is made weekly to a convenient place in the neighborhood of Philadelphia for the collection of plants. Permission has again been granted to Professor Maisch and the botanical class to botanize in Fairmount Park.

Chicago College of Pharmacy.—At the meeting held March 6th, the retiring President, Mr. E. H. Sargent, in his annual address, spoke feelingly of the sympathy extended by the pharmacists of this country and Europe to this College after the disastrous conflagration. Resolutions of thanks to all contributors were adopted.

The following officers were elected: George Buck, President; Th. H. Patterson, J. W. Mill, Vice-Presidents; G. M. Hambright, Secretary; A. C. Vanderburgh, Treasurer; A. E. Ebert, Corresponding Secretary; W. F. Blocki, Henry Biroth, N. Gray Bartlett, E. H. Sargent, J. C. Borcherdt, J. M. Hirsh, J. H. Mead, Thos. Whitfield, Jul. H. Wilson, Thos. N. Jamieson, Trustees.

The Cincinnati College of Pharmacy closed its lectures about the middle of April. The course, we are informed, has been quite successful.

A meeting of the College was held March 19th, at which numerous specimens were presented to the cabinet, and exhibited to the College by Professor Wayne in an interesting lecture. A unanimous vote of thanks was tendered to the donors, Messrs. Powers & Weightman, Browning & Bros., and Prof. Wayne.

The report of the Committee on Certificates of Membership was received, and the Committee discharged. The Committees on Pharmacy Bill and on Bill for the Establishment of Colleges of Pharmacy were merged into a joint committee, with power to act in the whole matter.

Louisville College of Pharmacy.—The first session in this institution came to a close on March 29th, the class numbering 26 students.

California Pharmaceutical Society.—The regular monthly meeting was held on Wednesday evening, March 13th, Mr. Calvert, in the absence of the President, in the chair. After the usual routine of business and the election of new members the Committee on the New Constitution and By-Laws reported

that the printed constitution, with list of members, was still in the hands of the printer, awaiting the final passage of the new drug law, now before the Legislature, relating to the City and County of San Francisco, with the view of incorporating the same into the pamphlet.

The new drug bill was then brought up for discussion, when, after considerable debate on some minor points which were considered now irremediable, the proposed bill was accepted and endorsed by the Society.

The following resolution was adopted:

Resolved, That the thanks of this Association be tendered to Messrs. Malinkrodt & Co., of St. Louis, for the donation of a box of chemicals received by the Society.

The Corresponding Secretary read, among other correspondence, extracts from a letter from Prof. J. M. Maisch, requesting botanical specimens indigenous to this coast, either on a basis of exchange or pecuniary remuneration, when, on motion, the matter was referred to the Board of Directors.

The above-mentioned drug law having since passed the Legislature and received the signature of the Governor, we give in the following a general synopsis of the Act, which provides that after the 1st of June, 1872, it shall be unlawful for any one unless a registered pharmaceutist or assistant pharmaceutist, to open or conduct any pharmacy or store for retailing, dispensing or compounding medicines or poisons. The persons to be registered are divided into four classes: graduates, licentiates, practicing and assistant practicing pharmaceutists—the status of each being clearly defined. The members of the California Pharmaceutical Society residing in San Francisco shall, during the month of May, and annually thereafter, elect five of the most prominent pharmaceutists of San Francisco to serve as a Board of Pharmacy. The duties and powers of this board are defined in detail by the remainder of the bill, also the regulating of the sale of poisons and adulterated drugs. In the main, the bill is analogous to the new proposed act drafted by the Conference Committee of the College of Pharmacy and Pharmaceutical Societies of the City of New York, and made conformable to the wants of the pharmaceutists of San Francisco. An important feature of this Act is the exemption of all pharmaceutists from jury duty.

Wm. T. Wenzell, *Cor. Sec.*

A Meeting of the Pharmacists and Druggists of Cleveland was held on Thursday, April 18th, at the store of Strong & Armstrong; the following committees were appointed to make arrangements for the twentieth annual meeting of the American Pharmaceutical Association, to be held in Cleveland in September next:

Committee on Ways and Means.—E. M. Hessler, F. H. Hubbard, S. P. Churchill, L. Smithnight, J. J. Vogt, A. C. Armstrong, L. J. Merkel, W. H. Hartness, P. I. Spenzer, J. P. Moore, W. J. Ranny, George Ashcraft, T. Theo. Mueller, A. J. Townsend.

Committee of Arrangements.—C. S. Mackenzie, H. C. Gaylord, S. M. Strong, D. Meyers, L. J. Merkel, Bruce Huling, C. P. Vaupel.

Committee on Halls.—H. C. Gaylord, Marshall Shay, A. Mayell, H. C. Bush, G. W. Clarke, J. F. Baier.

Committee on Exhibitions.—L. J. Merkel, H. C. Gaylord, A. Mayell, H Hensch, J. P. Moore, Z. P. Casterline.

Committee on Hotels and Railroads.—A. C. Armstrong, C. C. Canfield, A. W. Bock, C. F. Fenton, A. Mayell, S. P. Churchill.

Committee on Reception.—S. M. Strong, J. J. Vogt, C. S. Mackenzie, C. P. Vaupel, G. W. Clark, Horace Benton, J. D. Keegan, Z. P. Casterline, E. M. Hessler, J. Townsend.

Committee on Entertainment.—C. C. Canfield, C. S. Mackenzie, E. M. Hessler, A. C. Armstrong, Bruce Huling, W. H. Hartness, W. J. Field, W. H. Capner.

The next meeting will be held at the store of Benton, Myers & Canfield, on Tuesday evening, April 30th.

Pharmaceutical Society of Great Britain.—At the pharmaceutical meeting held March 6th, Mr. A. F. Haselden in the chair, a number of interesting specimens were presented to the museum, among others true Winter's bark, chrysophanic acid, methyl-strychnia, xylol, croton chloral-hydrate and three sponges *in situ*. Dr. Dyce Duckworth read a paper on the pharmacy of ipecacuanha, in which it is stated that the deposit in the officinal wine contains acid tartrate of potassa and cephaelate of emetia, and that the addition of 3 or 4 minims of liquor potassæ renders the muddiest wine or tincture bright and clear and of the color of old port wine; the author proposes in their stead an acetum containing 1 oz. of ipecac and of acetic acid in the pint; also an oxymel, made by Mr. Carteighe by macerating 1 oz. of ipecacuanha with the same quantity of acetic acid for 24 hours, then displacing with water 10 fluidounces and mixing with 2 lbs. clarified honey. A very interesting discussion followed on the assaying and composition of ipecacuanha and on medicated wines.

A note on *Cinchona caloptera*,* by Dr. J. E. De Vrij, was then read, from which it appears that this species was supposed to be *Cinch. succirubra* shortly after the introduction of the cinchonas into Java; as early as 1860 Mr. J. E. Howard doubted its identity with the latter species, and Dr. Miquel finally recognized it as a new one, and described it as *Cinch. calopt·ra* in Annales Musei Botanici Lugduno-Batavi. In 1868 Dr. De Vrij analyzed it, and found only 0·55 per ct. of alkaloids, mostly cinchonia; an older bark, examined since by Moens, yielded 0·63 quinia and 2·8 cinchonia.

Meeting of April 3.—Mr. C. H. Wood read a paper on the metrical system of weights and measures into the Pharmacopœia, in which the author advocates to designate the quantities of the ingredients in the various formulas, not only by the present weights and measures, but likewise by proportional numbers (parts and fluid parts). The plan was not favorably received by Messrs. Hazelden and Carteighe, who expressed themselves opposed to such a transitional change, and would rather prefer the adoption of the metrical system, but thought that the time had not arrived for this final change. Similar views were held by Mr. Martindale; if the metrical system were introduced, he hoped it would be done without the weighing of liquids. Professor Redwood contended

*See American Journal of Pharmacy, 1872, p. 172.

the plan proposed by him,* to use in all formulas only the terms parts and measures, was the simpler one, equally applicable to the weights and measures now in use and to the metrical system, so that no further change would be necessary. Mr. Williams adopted the same views. Mr. Wood replied at considerable length, after which Mr. Edward Hested read a paper on the occurrence of copper in cajeput oil; six samples examined by him contained copper: by redistillation a colorless oil was obtained, which, in contact with copper, dissolved that metal and turned green.

Pharmaceutical Society of Paris.—At the session held Dec. 6th, 1871, Mr. Lefort in the chair, Mr. Grassi was elected Vice-President and Mr. Bourgoin Annual Secretary for 1872. An interesting discussion took place on the Norwegian pot for cooking victuals at a temperature below 100° C. Mr. Baudrimont communicated an analysis made of an East Indian cinchona bark (*Cinch. succirubra*), which yielded 37½ per cent. of extract and 5·45 per ct. of sulphates of the alkaloids, one per cent. being the quinia salt, the remainder quinidia and cinchonia sulphate. Mr. Marais ascribed the large yield of extract to the bark being young. Mr. Planchon presented to the Society wax from *Ceroxylon andicola*, of New Grenada, and a root of *Psychotria emetica*, and made some remarks about different ipecacuanhas. Mr. Méhu read a paper on the preparation of indigotin.† Mr. Soubeiran exhibited compressed and desiccated bread prepared by Mouries. The same gentleman referred to the loss of the Chicago College of Pharmacy, sustained by the great fire, and asked for contributions towards reforming its collections. Mr. Guichard read a paper on soluble oxide of iron, which is obtained by precipitating in the presence of sugar, sequichloride of iron with an excess of caustic soda, the soluble compound containing soda, ferric oxide and sugar; glycerin and mannite yield similar compounds.

At the meeting of January 8th, Mr. Stan. Martin presiding, Mr. Baudrimont spoke about his researches on sulpho-chloroform. The reaction between chloroform and sulphide of sodium is complicated and does not yield any satisfactory results. On acting with the same sulphide upon a cold aqueous or alcoholic solution of chloral, the liquid becomes hot and of a beautiful red color. The aqueous solution soon becomes turbid, and deposits an abundant yellow precipitate. Similar results are obtained with an alcoholic solution, which, however, assumes such an intense coloration that by this reaction chloral may be detected in a liquid containing only $\frac{1}{400}$. This compound stains the hands and paper, and the coloration is pretty persistent, although it changes even in the dark.

The February session was held on the 7th, Mr. Martin in the chair. Mr. Bussy read a note by Mr. Carles on the efflorescence upon vanilla, to which he ascribes acid properties and the formula $C_{16}H_3O_4$;‡ the iodine substitution compounds crystallize well.

Mr. Roucher's essay was presented, entitled Reflections on the Relations be-

* See American Journal of Pharmacy, 1872, p. 87.

† See Amer. Journ. Pharm., 1872, p. 71.

‡ See Gobley's investigations on *Vanillin*, in Amer. Journ. Pharm., 1859, p. 130.—Stokeby's formula for vanillic acid is $C_{34}H_{22}O_{21}$.

tween Military Physicians and Pharmacists. It stated that Mr. Poggiale's efforts had succeeded in making the grades alike, and maintaining the equality of the two branches; but lately attempts had been made, not only to subordinate pharmacy to medicine, but even to suppress the pharmaceutic service in the army. Mr. Poggiale, for himself and the military pharmacists, thanked Mr. Boudet, who had read the essay and commented upon it approvingly.

Mr. Bussy reported on the transactions of the Académié des Sciences, and gave an account of the precautions adopted by Dupuy de Lôme, resulting to a certain degree in steering balloons; also on the debates on fermentation.

Mr. Buignet related the interesting researches on crystallized digitalin, in competition for the Orfila prize.

Mr. Roucher read a long paper on distinguishing between the fibres constituting vegetable tissues by means of the microscope, sulphuric acid and iodine.

Mr. Marais stated that towards the end of 1871, the thermometer having fallen to —22° C., and the stem of *Cerasus laurocerasus* being frozen, a singular alteration was observed in its leaves, proceeding from the petiole towards the margin, rarely from the border towards the centre. Immediately after this period of cold, the leaves would still yield volatile products, but no hydrocyanic acid. It would be interesting to ascertain whether the emulsin alone had been altered, for which purpose Messrs. Bourgoin and Gobley suggested to treat the bruised leaves with emulsion of sweet almonds.

Mr. Vuaflard has prepared a tincture of cundurango, the efficacy of which in cancerous affections he considers exceedingly doubtful.

Minutes of the Pharmaceutical Meetings.

A pharmaceutical meeting was held April 16th, 1872, President in the chair.

The minutes of last meeting were read and approved.

Prof. Maisch presented the report of the Smithsonian Institution for 1870. The Professor also read a paper styled "Pharmacognostical Notes," which was referred for publication. Some remarks were made upon the use of Inula for hydrophobia—some assert its positive cure.

Samples of an herb were exhibited by Prof. Parrish, which is sold under the name of "wild tea," and used in cancerous affections. It does not appear to be the New Jersey tea *Ceanothus Americana*. It was referred to Prof. Maisch for examination.

Prof. Parrish exhibited a model in plaster, handsomely gilded, of the celebrated gold nugget, "The Welcome," weighing 2166 oz., value £8376, 10s., 10d. The original of this model is in the Kensington Museum, of London.

Prof. Parrish exhibited a sample of coated pills, sent from England, very handsome, but, as compared with sugar coated pills, not so soluble.

Prof. Maisch read a paper on benzine as a solvent for Oleoresins compared with ether, which was referred for publication. Mr. Bullock remarked that some oleoresins were nearly insoluble in benzine.

Prof. Maisch detailed the result of his experiments on Monobromated Cam-

phor, which he has secceeded in preparing without using hermetically sealed vessels, and thus doing away with the danger of explosions; a considerable quantity of hydrobromic acid is likewise obtained by this process, which, by the old method, was mostly lost. The experiments not being completed yet, the results will be communicated in detail at a subsequent meeting.

Mr. Boring exhibited a sample of purified suet, which was very handsome. It was made by treating the melted fat with table salt and alum, and after congelation, washing out the salts by large quantities of water; the remelted fat is then benzoinated. Prof. Maisch stated that this was essentially the process employed by perfumers in purifying their fats for pomade.

The meeting then adjourned.

CLEMMONS PARRISH, *Registrar.*

Editorial Department.

TWO PHARMACEUTICAL SCHOOLS IN ONE CITY.—We cheerfully insert the subjoined letter correcting an error into which we had been unwittingly led, because we have never seen the charter of Georgetown College, and because we have heard frequently of this Institution as a medical college, but, to the best of our remembrance, never as an university.

"WASHINGTON, D. C., April 8th, 1872.

Editor American Journal of Pharmacy:

"DEAR SIR.—Permit me to present to your attention the *facts* in the matter of conferring degrees in the School of Pharmacy of Georgetown College.

"The School of Pharmacy is only a part of the Medical Department, inasmuch as two Professors of the latter (viz., Materia Medica and Chemistry), are acting with one Professor of Pharmacy, and constitute the school. The degrees are *not* conferred by the Medical Department of Georgetown College, but by the mother institution through its School of Pharmacy. The Diplomas are signed by the President of Georgetown College, and have the corporate seal of the President and Directors of Georgetown College attached.

"A reference to a law of the Congress of the United States, passed in March, 1815, will show that Georgetown College is an *University*, clothed with all the powers and privileges of such institutions, and therefore it has the *right* to confer degrees in *all* the arts and sciences.

"I hope, sir, you will do us the justice to correct your error in the next issue of the *Journal of Pharmacy*. With respect, I remain, yours,

D. P. HICKLING,
Professor of Pharmacy, Georgetown College."

It will be seen from this letter that our National Capital has set an example which, we trust, will not be followed by any other city, namely, to have two pharmaceutical schools in one locality. We are earnestly advocating the proper education of the pharmacist, and are in favor of the multiplication of Colleges of Pharmacy, but not to an indefinite number, which would be fraught with results similar to those which the medical profession throughout the country is endeavoring to correct. Favoring, as we do, the education of pharmacists by pharmacists, it is not too much to hope that, if the necessity for a College of Phar-

macy in the District of Columbia is felt, the pharmacists there may profit by the experience of their brethren in other cities, and after they shall have established a College, that both the Georgetown and the Columbian College may follow the example of the University of Pennsylvania (see page 191 of our last number), which has been imitated, we believe, by all the medical colleges in those cities where Colleges of Pharmacy have thus far been established.

The Philadelphia Pharmacy Bill has been passed by both Houses of the Legislature and become a law through the signature of the Governor; a copy of it will be found upon another page, and enable the reader to judge of its merits. In several respects we regard it as the best pharmaceutical law which has yet been passed in the United States, inferior only to the one which the Governor vetoed on February 19th (see page 136 of March number). We firmly adhere to the doctrine that the members of a profession are better able to regulate their professional affairs than others not connected with it, and we therefore regret that it was deemed advisable, under existing circumstances, to change Section II, as originally proposed, so as to take away from the College of Pharmacy the duty to nominate candidates for the Examining Board, and vest the power to make the selection in the Mayor of the city alone, who can hardly be expected to know the *most skilled and competent pharmacists of the city*, from whom he is to make the appointment.

However, Mayor Stokley appears to be impressed with the responsibility placed upon him by this law, and by a letter to the President of the College, requested that its Board of Trustees should nominate ten persons suitable, as the law requires, for this position. The Board, after long and patient consultation, has performed this task, and communicated the nominations to the appointing officer.

The Appointment of the Pharmaceutical Examining Board of Philadelphia has been made by Mayor Stokley from the nominations by the Board of Trustees of the Philadelphia College of Pharmacy, and must prove eminently satisfactory, because party politics did not enter into consideration. The gentlemen appointed were selected with regard to their fitness for the responsible position, and are well known and highly esteemed here. We heartily congratulate the Mayor on his excellent choice. The following is an exact copy of the official letter:

[seal.] Mayor's Office of the City of Philadelphia,
April 24th, 1872.

Dillwyn Parrish, Esq.:

Dear Sir,—His Honor the Mayor directs me to write you that the following-named gentlemen have been selected by him as the Pharmaceutical Examining Board for the City of Philadelphia, viz.: James N. Marks, Charles L. Eberle, James T. Shinn, Edward Parrish, and Robert England, and I have notified each one this day of their appointment.

Very respectfully,
Wm. Culbertson, *Clerk.*

Alumni Association of the Philadelphia College of Pharmacy.—The fact that the graduates of this College are scattered all over the United States,

renders the attendance at their annual reunions usually less numerous than was probably anticipated. Besides those residing in and near Philadelphia, few can spare the time, leaving the expense out of consideration, to be present every year. But every graduate might, and through the medium of this Association ought to, remain in communication with his Alma Mater, and we therefore refer with pleasure to the advertisement of its Secretary, in which such a plan is suggested. Perhaps, if more general reunions were contemplated, say decennially, they would become interesting occasions, and would probably attract many of the older graduates by the prospect of meeting their collegiate friends, and view the changes which time has wrought, not only by thinning their former circles, but likewise by replenishing the broken links with younger members of the profession: the institution from which they obtained their honors would certainly receive a fair share of their attention.

The Pharmacy Bill for Ohio failed to pass on the 19th of April, lacking seven votes to secure its passage. A friend of this measure very pertinently writes on this subject: "A short time ago, two young men took Seidlitz powders; one died within an hour or two, the other was barely saved; the analysis by Mr. Fennell showed arsenic. If such an *accident* happened to the members of the Legislature, perhaps they would show more interest in this movement."

We have read the testimony in this case before the coroner in the Cincinnati newspapers, and were astonished that no question was asked about the place where arsenic was kept, and no investigation made of the contents of the vessels from which the powders were *said* to have been put up. From the published evidence, this might just as well be a case of suicide, as of criminal neglect.

Science in the Courts.—The protracted trial of Mrs. Elizabeth G. Wharton on the charge of poisoning General W. S. Ketchum, which took place a few months ago, at Annapolis, Md., and lasted forty-three days, is fresh in the memory of our readers, as is also the voluminous expert testimony submitted to the jury. It is not our purpose to review the same, but merely to state that Professor Aiken's testimony furnished merely *presumptive*, but not *conclusive*, evidence of the presence of antimony in the stomach of the deceased, because, 1, he did not take proper precautions against interference with his results during his absence; 2, he kept no notes, but relied mainly upon his memory; 3, his written reports differed materially from each other; 4, he had not recently examined the reagents employed as to their purity; 5, he did not preserve the results of his investigation for subsequent verification by other experts, if deemed necessary; 6, after destroying the organic matter by hydrochloric acid and chlorate of potassa, he relied solely upon the following experiments to establish the absence of arsenic: sulphuretted hydrogen produced a dark brownish precipitate, which was very sparingly dissolved by ammonia; 7, without destroying the organic matter, the following tests only were employed to prove the presence of antimony; sulphuretted hydrogen produced a brownish-red precipitate, which was dissolved in muriatic acid; the solution yielded with water a white precipitate, which turned orange red with sulphide of ammonium, and was soluble in nitric acid.

Professor Tonry's experiments were also unsatisfactory, for various reasons. In this trial it took several days to contradict this expert testimony.

The *Scientific American* of March 9th, p. 167, relates another instance of unreliable expert testimony.

"In a recent trademark suit, relating to the manufacture of mustard, Dr. Ogden Doremus, of New York, swore that mustard seeds contained over eleven per cent. of starch. To prove it, he used a solution of iodine upon mustard placed on filtering paper, which paper gave, when tested, the characteristic reaction of iodine with starch when no mustard was present. The error in the experiment was pointed out by Professors Seely and Chandler. Dr. Doremus was aided by Dr. Austin Flint, who tried to confirm, by the use of a microscope, what Dr. Doremus tried to prove by the iodine test. Dr. Flint swore that he could see the granules of starch by the use of a high power. Professors Seely and Chandler could not see any such granules, but they did see what they thought might have been fragments of the exterior envelopes of the seeds. Dr. Doremus has, in a letter since published, affirmed the presence of starch in mustard seed (he says nothing of the percentage), and attempted to prove it by a test which would give the same results with cellulose as with starch."

When mustard seeds are freed from their fixed oil by oil of turpentine, and then washed with alcohol, the residue is not colored blue by iodine. Starch granules have never been observed in mustard seed; but *amorphous* starch was at one time supposed to be contained therein; the above experiment, however, completely disproves this.

The *Scientific American*, in commenting upon a number of similar cases, correctly says that now the jury must make a guess as to what is right or wrong, and the average juryman is rather more likely to guess wrong than right in matters of science. It concludes an article, with the above caption, as follows:

"Now there is a plain, simple and practical remedy for this state of things. In all cases where there are points of law to be decided, there is an arbiter on the bench to perform that office. There should be an equally authoritative tribunal to decide on scientific points, a separate jury of experts, if may be, constituting, for the time, a scientific court, whose charge to the jury should be as authoritative as that of the judge. Would it not be refreshing to hear such a witness as the one mentioned above, who swore to finding aconite, disposed of in the following fashion?: 'It is my duty, gentlemen of the jury, as foreman of the scientific jury in this case, to instruct you that aconite cannot be detected by the process described in the testimony of the witness. However much he may be convinced that he did so, it is contrary to known laws of chemistry to suppose that he so obtained it. You are, therefore, to dismiss from your minds the possibility of such a result, in your deliberations of the case.' Or perhaps this:

"'The process sworn to by A will obtain arsenic from the stomach of a person poisoned by that substance. The process sworn to by B will not obtain it. A says that by his process he found no arsenic: B says he found it in a process by which he could not have found it. It remains for you to judge whether, if by an accurate method arsenic could not be found, the testimony of one who swears he found it by an impossible process proves its presence.'

"Let such a course be pursued, and we soon should have somewhat less of *pseudo* science on the witness stand, and true scientific testimony would become of real value."

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Pharmacopœa Danica. Regia auctoritate edita. Hauniæ. Impensis Reitzelii. 1868. 8vo., 356 pages.

The Danish Pharmacopœia.

In 1865, delegates from Denmark, Norway and Sweden assembled in the city of Stockholm, to confer about the pharmacopœias of the three countries then requiring a revision. The main results of this conference consist in the designation of the proportions in *all* formulæ by *parts* (by weight), the adoption of uniform strength for all galenical, and particularly the more powerful, preparations contained in the three pharmacopœias, and in the selection of a uniform system of nomenclature; hence the three pharmacopœias are, in the main, identical with each other, and differ chiefly in the manipulations directed and some other minor points. A review of one pharmacopœia applies, therefore, to the others, with the exceptions mentioned.

Although the Danish pharmacopœia was issued two years in advance of the Norwegian, reviewed in our February number, it will be of interest to compare the two with each other.

The tables appended to the pharmacopœia now before us are not quite as numerous as in the other; those giving the strength and specific gravity of ammonia and of various acids, also the tables of solubility and of atomic weights have not been introduced. One of the tables compares the degrees of Spendrup's (temper. 11·25° C.) with those of Tralles' (temper. 15·625° C.) alcoholometer, the former being principally used in Denmark; 1° Sp. = 4·857 Tr.; 4 = 22·88; 8 = 47; 12 = 71·5 and 16° Sp. = 93·25° Tr. Morphia is not kept in a locked closet, but the shop bottle must be marked †††, like all other heroic medicines.

Tinctures are made in the proportion of 1:10 or 1:5 (by weight) either by maceration at 15 to 20° C. for eight days, or by digestion at 35 to 40° C. for three days, any loss in weight, which may have been sustained during the operation, to be made up, before filtration, by the addition of 85 per cent. alcohol. Plasters are preserved in metallic boxes over burned lime, which is to be renewed every three or four weeks. Dry narcotic extracts are made, as by the Prussian Pharmacopœia, by adding enough powdered liquorice root, so that the exsiccated powder has double the weight of the extract used; in prescriptions double the quantity ordered is dispensed. The Norwegian pharmacopœia has the narcotic extracts *only* in the powder form; all contain one-fourth of their weight of milk sugar. Pills, if not otherwise directed by the physician, are made so that each contain 0·12 grm. of the articles enumerated in the prescription.

All the medicated waters are distilled, one part of the drug yielding ten parts distillate (aqua rosæ 1·3; aqua amygdalarum amararum concentrata contains 0·136—0·140 per cent. hydrocyanic acid; the dilute bitter almond water is made by adding to one part of the former 19 parts of distilled water). The Norwegian pharmacopœia prepares all medicated waters by agitating one part of the volatile oil with 1000 parts of the water; if, however, the physician specially orders *distilled* medicated waters, they are to be obtained by distilling from fruits or

seeds 20 parts, and from leaves, herbs or barks 10 parts. Unlike the latter, the Danish pharmacopœia still gives processes for many chemicals, but none for the alkaloids or their salts.

The processes as well as the descriptions and tests of purity are given in a concise but clear language, chemical tests of identity being usually omitted. We append a few of the complex formulas, some of which it will be noticed, order rather indefinite quantities of coloring material. *Pharm. Norv.* contains the same preparations, mostly improved by simplifying the process.

Unguentum nervinum.

℞.

Herbæ Majoranæ minutim concisæ, 1 p.
Florum Lavandulæ minutim concisorum, 2 p.
Fructus Lauri grosse pulverati,
Radicis Pyrethri grosse pulverati,
of each, 3 p.

Digest for twelve hours in
Spiritus concentrati (sp. gr. 0·830), 18 p.
Fuse in a water bath
Ceræ flavæ, 6 p.
Sevi ovilli, 24 p.
Axungiæ Porci, 48 p.
and continue the digestion until the alcohol has evaporated, express the mass between hot plates, strain, and when nearly cold, add
Ætherolei Rosmarini, 6 p.

Before straining, add to the hot ointment turmeric and finely powdered indigo to produce a bright green color.

Unguentum Acetatis plumbici compositum—Unguentum hæmorrhoidale.

℞.

Stigmatum Croci pulveratorum, 1 p.
Camphoræ pulveratæ, 2 p.
Olei Hyoscyami infusi, 4 p.
Unguenti acetatis plumbi (1 in 10) 18 p.
M.

Species fumales.

℞.

Succini, 60 p.
Gummi-resinæ Olibani, 120 p.
Resinæ Benzoes, 180 p.

Bruise separately, remove the fine powder, and add
Ætherolei Cedro,
Ætherolei Lavandulæ, of each, 1 p.
Mix.

Tinctura Lavandulæ rubra.

℞.

Corticis recentis fructus Citri minutim concisi, 3 p.
Florum Lavandulæ minutim concisorum, 36 p.
Spiritus diluti (sp. gr. 0 89),
Aquæ communis, of each, 150 p.
Macerate over night and distil 150 parts; digest the distillate with
Corticis Cinnamomi, Cassiæ, 4 p.
Fructus Cubebæ,
Florum Caryophylli, of each, 1 p.
Ligni Santali rubri pulverati, q. s.
to impart a deep red color.

Tinctura Digitalis rubra—Elixir antasthmaticum Aaskovi.

℞.

Foliorum Digitalis nuper grosse pulveratorum, 2 p.
Radicis Glycyrrhizæ echinatæ minutim concisæ, 4 p.
Ligni Santali rubri pulverati, 1 p.
Aquæ Fœniculi,
Spiritus diluti, of each, 10 p.
Digest.

Emplastrum Manus Dei.

℞.

Emplastri oxydi plumbici, 150 p.
Æruginis subtillissime pulveratæ, 4 p.
Boil with frequent agitation until of a brown red color, then add
Ceræ flavæ, 32 p.
and, when somewhat cooled, mix with
Gummi-resinæ galbani pulverati,
Gummi-resinæ Ammoniaci pulverati,
Gummi-resinæ Olibani pulverati,
of each, 4 p.
Gummi-resinæ Myrrhæ pulverati,
Resinæ Mastiches pulveratæ, of each, 1 p.
and form into rolls.

Address of Noble Young, M.D., Professor of Principles and Practice of Medicine, &c. Delivered on the Occasion of Laying the Corner Stone of the Building for the College of Physicians and Surgeons of Wilmington, N. C., Dec. 27th, 1871.

History of Medicine from the Earliest Ages to the Commencement of the Nineteenth Century. By Robley Dunglison, M.D, LL.D., &c. Arranged and edited by Richard J. Dunglison, M.D. Philadelphia: Lindsay & Blakiston, 1872. Small 8vo, 287 pages. Price, bound in cloth, $2.50.

This is a posthumous work of the late distinguished Dr. Robley Dunglison, well known by his numerous contributions to medical science and as a successful teacher of the institutes of medicine and medical jurisprudence in the Jefferson Medical College of Philadelphia. The work was arranged and revised by the son of the deceased, from the manuscript lectures on this subject formerly delivered at the University of Virginia at the time when Thomas Jefferson was Rector thereof. While it does not pretend to be exhaustive, it gives a clear picture of medicine, and its gradual development, in an attractive style, presenting all the principal laborers in this science, with their chief accomplishments and theories, but carefully avoiding prolixity, to which a discussion of these subjects is apt to lead. A chapter has been added by the editor relating to the medical history of America.

The work is printed, in clear types, upon strong tinted paper, and presents a handsome volume, deserving a place in the library of the physician.

Memoranda on Poisons. By the late Thomas Hawkes Tanner, M.D., F.L.S. Third and completely revised edition. Philadelphia: Lindsay & Blakiston, 1872. 16mo, 155 pages. Price, bound in cloth, 75 cents.

This appears to be a useful little volume, adapted particularly for the student, and also the practitioner of medicine. Descriptions of the poisons, symptoms of poisoning, post-mortem appearances, treatment and the detection of poisons, are treated under the different headings, the poisons being conveniently arranged in accordance with their chemical nature or their influence upon the animal economy. An attempt has been made by the editor to adopt the modern system of nomenclature, but has not been carried through, the so-called modern and older systems being promiscuously mixed. In the appendix is a table from Dr. Garrod's "Materia Medica," showing the proportions in which some of the more important drugs are contained in the officinal preparations. This table refers to the British Pharmacopœia, but ought to have been altered to agree with our national standard; for, although most officinal preparations approximate in their strength as prepared by the two pharmacopœias, they are by no means alike, and the difference, for instance in tincture of aconite root, is too considerable to be overlooked. A pretty complete index is a valuable addition, enhancing the usefulness and convenience of the volume.

Annual Report of the Board of Regents of the Smithsonian Institution, showing the Operations, Expenditures and Condition of the Institution for the Year 1870. Washington: Government Printing Office, 1871. 8vo, 494 pages.

The official report contains, upon the first 88 pages, the usual information concerning the operations of this institution during the year 1870. This is followed by biographical memoirs and sketches of several scientific persons: Professor A. D. Bache, Francis Arago, William Herschel, H. G. Magnus and

Chester Dewey, and by a number of interesting lectures and essays on various scientific subjects.

Dr. Rigby's Obstetric Memoranda. Fourth edition, revised and enlarged. By Alfred Meadows, M. D. Philadelphia: Lindsay & Blakiston, 1872. 16mo, 104 pages. Price, bound in cloth, 50 cents.

A succinct account of the various conditions of pregnancy, natural, unnatural and complex labor, obstetric operations and puerperal diseases.

Lecture on Water, delivered before the American Institute of the City of New York, in the Academy of Music, January 20th, 1871. By Professor C. F. Chandler, Ph. D. Albany, 1871.

This interesting lecture is reprinted from the Transactions of the American Institute for 1870—71, and is illustrated by several plates.

The Question of Quarantine: the Nature and Prevention of Communicable Zymotic Diseases. By Alfred L. Carroll, M. D. New York: F. Leypoldt, publisher, 1872. 8vo, 21 pages. Price 50 cents.

This pamphlet is printed from advance sheets of the "Medical Gazette," and contains a paper which was read before the Medical Library and Journal Association of New York Jan. 5th, 1872.

Chicago Relief. First Special Report of the Chicago Relief and Aid Society. Chicago, 1871. 8vo, 63 pages.

First Annual Report of the Dispensary of Skin Diseases, No. 216 *South* 11*th Street, Philadelphia.* 1872. 8vo, 15 pages.

OBITUARY.

Elijah W. Sackrider, M. D., died on the 14th of April last. He had been in the drug business for a number of years, in Cleveland, O., and was highly esteemed by all who knew him; he was connected with the American Pharmaceutical Association from 1859 to 1870, and was at one time one of its vice-presidents. A friend writes of him: "When I think of his bright eye, elastic step, and youth-like eagerness in the pursuit of whatever might be the object of our search, 'I cannot make him dead.'" He lately visited the South, having been ailing for some time from a pulmonary complaint, which terminated his life.

James G. Fritchey, a graduate of the Philadelphia College of Pharmacy, of the class 1868–69, was born at Mechanicsburg, Cumberland County, Pa., April 6th, 1849, and learned the apothecary business with Mr. E. B. Garrigues, of this city. Shortly after he graduated, the symptoms of pulmonary consumption made their appearance, and the disease closed his earthly career on November 4th, 1871, at his father's residence. The deceased was a conscientious and promising young man.